THE BRITISH PTERIDOLOGICAL SOCIETY
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The BRITISH PTERIDOLOGICAL SOCIETY was founded in 1891 and today continues as a focus for fern enthusiasts. It provides a wide range of information about ferns through the medium of its publications and other literature. It also organises formal talks, informal discussions, field meetings, garden visits, plant exchanges, a spore exchange scheme and fern book sales. The Society has a wide membership which includes gardeners, nurserymen and botanists, both amateur and professional. The Society's journals, the *Fern Gazette, Pteridologist* and *Bulletin,* are published annually. The *Fern Gazette* publishes matter chiefly of specialist interest on international pteridology, the *Pteridologist,* topics of more general appeal, and the *Bulletin,* Society business and meetings reports. **WWW site:** http://www.nhm.ac.uk/hosted_sites/bps/

Membership is open to all interested in ferns and fern-allies. **SUBSCRIPTION RATES** (due on 1st January each year) are Full Personal Members £15, Personal Members not receiving the *Fern Gazette* £12, Student Members £9, Subscribing Institutions £25. Family membership in any category is an additional £2. Applications for membership should be sent to the Membership Secretary (address above) from whom further details can be obtained. (Remittances made in currencies other than Sterling are £5 extra to cover bank conversion charges.) **Airmail** postage for all journals is an extra £4, or for those not receiving the *Fern Gazette* £2.50. **Standing Order** forms are available from the Membership Secretary.

(**Front cover**: *Thelypteris palustris* Schott. Illustration from: Anne Pratt (1855) *The Ferns of Great Britain.)*

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RETIRING PRESIDENT'S ADDRESS

(Presented after the AGM at the Royal Botanic Gardens, Kew, Surrey, 18 October 1997)

THE WANDERINGS OF A FERN CYTOLOGIST

Dr T.G. Walker

As one approaches middle age (!) it is the time for reminiscing and the realisation that at certain stages of one's life particular events have shaped the future and, especially when one is faced with alternatives, choices have to be made. This has happened several times to me.

Having been born and spent the first part of my life in York, a rich biological area, it is not surprising that I grew up with an interest in natural history although as a schoolboy I was much less fascinated by plants and concentrated on beetles and aquatic life.

The first significant step in my later botanical career was, rather surprisingly, through National Service. I joined the Royal Air Force a few months after the war ended and was posted to India. Although mainly stationed in Delhi and the Ganges Plain where the summer temperature hit 123°F, I spent my leave in the foothills of the Himalayas at about 7000ft and enjoyed the cooler air and the smell of conifers as well as breathtaking views of the highest peaks of the range. I was fortunate also in seeing great historical events – the last days of the Raj, the division of India and Independence. When this took place our unit was moved to Singapore where I spent about a year. This time spent in India and Singapore opened my eyes to the staggering richness of plant and animal life and gave me a life-long love of the tropics.

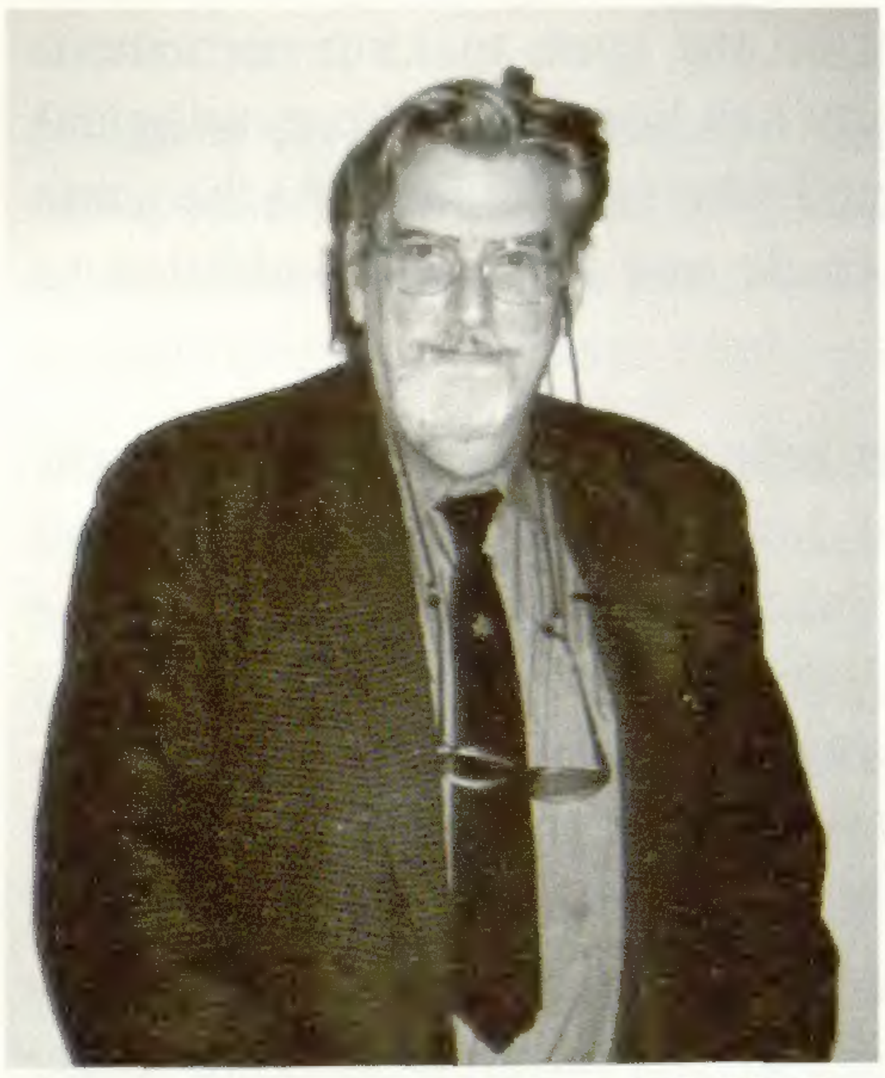

photo: A.C. Wardlaw

Trevor Walker at BPS AGM 1997

On demobilisation I applied for botany courses at the Universities of Leeds and of Newcastle and was accepted for both. There was little advice for prospective students in those days and I plumped for Leeds by chance – the first crossroads! If I had gone to Newcastle I would most probably have taken up plant physiology, as the Botany Department there, under Prof. Meirion Thomas, was a leader in this field. If so, I would probably not have met my wife and probably would have had no connection with ferns and hence not made friends at Kew, the Natural History Museum and elsewhere.

This period (*c.*1948) was a great time in the universities since approximately 90% of the new students were ex-servicemen who brought a mature, fresh outlook on things and were

instrumental in sweeping aside a lot of the old restrictive rules. They worked hard, played hard, and never mixed the two. Indeed, they demonstrated the enormous value of taking a break between school and university.

At Leeds I became fascinated by the pteridophytes, thanks to Dr Arthur Sledge's enthusiasm, and by cytology under Prof. Irene Manton's tuition. These two interests came together when I started research. At this time British ferns were being worked on in the Botany Department by Stanley Walker *(Dryopteris)*, Molly Shivas (*Polypodium vulgare sensu late* and *Asplenium adiantum-nigrum* group) and at the same time as I was starting so also was John Lovis (*Asplenium trichomanes* complex). The obvious choice for me, with my bent for the tropics, was to take on the *Pteris quadriaurita* complex in Ceylon, which was known to be a problem. (The whole thing has gone full circle in that after concentrating on other problems, last year I wrote up *Pteris* for the fern volume of the *Flora of Ceylon*.) My work as a research student involved frequent visits to Kew (where Ballard was in charge of ferns, the incomparable Bert Bruty looked after the living collections and Sir Edward Salisbury was Director) and to the BM (where Alston had responsibility for ferns), starting an association with these two institutes that has continued for the past 45 years.

Halfway through my studentship in 1954 I went to Ceylon with Arthur Sledge to do field work and see the plants 'in action'. Later in the same year the International Botanical Congress was held in Paris. This, for me, stood out for two things: the first was that Manton presented a paper on her new work on electron microscopy and it is the only time in my life that I have seen someone being given a standing ovation at a scientific meeting. The second was that I met Prof. Holttum for the first time. He quickly realised that fern chromosome numbers could help to solve some questions of relationships between genera and we collaborated in a general sort of way for the rest of his life.

Two years later, in 1956, Molly Shivas and I were awarded our PhDs and celebrated by getting married! The next year we went to Jamaica, I on an exchange lectureship at the University College of the West Indies as it was then, whilst Molly taught biology in three boys schools in Kingston. Jamaica is very rich in pteridophytes – over 600 taxa – and we were lucky in having Dick Proctor to show us the best collecting areas and to identify our hauls. This was the only time on my various collecting trips that I had the time and facilities to do much of the actual cytology on the spot, making permanent slides etc. Ever after, the procedure on collecting trips has been to make cytological fixations in the field and send them home to be examined when convenient. At the same time we collected living plants which went to Newcastle and to Kew in addition to making voucher herbarium specimens.

Mr Alston died whilst we were in Jamaica and on our return we invited his successor, Clive Jermy, to Leeds and that was the start of a long period of friendship and collaboration. In 1959 I was appointed to Newcastle University where I have been ever since. I returned to Jamaica a further twice for short visits and then Clive and I went to Trinidad for a short spell in 1963, both to study the ferns and as a trial of the practicalities of joint collecting ventures. The outcome was that we went on several collecting trips together very amicably, despite Clive's love of corned beef for which I had developed a loathing as a result of my experience in the Forces!

Air travel, prior to the early 1960s, was just starting to come into its own and the Ceylon, some Jamaican and the first Trinidad visits were all by ship. Speed, however, became essential and thereafter we flew – if lucky on privilege flights of the RAF. Once

at our destination we got about the country in a variety of ways – by road, by air, on foot etc. We usually camped out and on longer trips set up makeshift laboratories for processing the specimens. Many of these visits were not without incident, including experiencing a typhoon and earthquakes, having a platoon of soldiers for protection against insurgents, the casting out of magic spells, and careering down a mountain in a car just ahead of a succession of landslides that closed the road behind us!

photo: N. de N. Winser

Trevor Walker preserving specimens at Base Camp, Gunung Mulu National Park, Sarawak, 1978.

During this time-span the methods of obtaining meiotic chromosome counts have altered relatively little, thanks to the effectiveness of Manton's squash technique. By contrast, mitotic chromosome counting methods have undergone great changes. When I first started research almost the only means was by the lengthy and tedious process of embedding fixed roots in paraffin wax, followed by sectioning, staining, dehydration and mounting. This was adequate to give approximate results and to determine the level of ploidy but not sufficiently accurate to determine chromosome numbers exactly. The major breakthrough came when it was found that it was possible to make root tip squashes using much more drastic methods than were needed for flowering plants. In the early days this involved boiling the root tips for a few minutes in aceto-carmine, usually without benefit of a fume-cupboard. You can imagine the smell on 'squashing days' with acetic acid vapour pouring through the labs – Health and Safety in those days was virtually non-existent! Later on, it was found that the use of snail cytase and other reagents was effective and without smell. Although only a tiny percentage of the cells were in metaphase as compared with the root of a flowering plant, nevertheless excellent squashes could now be obtained which gave completely accurate counts and which in exceptionally good cases could enable karyograms to be constructed.

Thus my botanical life has consisted of bursts of physical activity whilst collecting in the tropics, followed by long spells back home tied to the laboratory bench processing the material. Although it is now a few years since my last visit abroad I am continuing the work by growing at home a number of ferns that pose particular problems, and of course there's always plenty to be done in the herbarium. Although my interests have been so focused on tropical ferns, my term as President of the BPS has been of immense satisfaction to me, seeing the enthusiasm of members for this fascinating group of plants. I congratulate the Society on maintaining its standard of meetings over the many years since its creation and in the range and high quality of its publications thanks to hard-working and dedicated editors. It only remains for me to congratulate Martin Rickard as the incoming President and to wish him well in his term of office.

NATIONAL FIELD MEETINGS 1997

NORFOLK BROADS – 6-8 June

Rose Murphy

This was a meeting with a very clear aim – a search for good populations of *Dryopteris cristata* in various NNRs (National Nature Reserves) and SSSIs (Sites of Special Scientific Interest) associated with the Broads of East Norfolk. At each site, samples were collected for the Natural History Museum study of genetical variation in *Dryopteris cristata.*

We met first on Friday evening at the Sutton Staithe Hotel by one of the Broads. Here we were introduced to Jo Parmenter, a local ecologist, and Phil Heath, a liaison officer with the Broads Authority, who were co-leaders with Clive Jermy for this meeting. Together, they had organised boat trips and drop-off points so that many *Dryopteris cristata* sites could be visited.

On the Saturday, after an introductory talk on the history of the Broads by Clive, we drove to Fenside (63/366214). Anthony Pigott had brought along a Global Positioning System (GPS) receiver that used rays transmitted by satellites to determine where we were in terms of latitude and longitude, or more useful to us, by grid reference; it worked whether we were in the middle of reed-swamp or even under birch scrub. It was to prove invaluable.

Walking across Catfield Fens (owned by the Norfolk Wildlife Trust and Butterfly Conservation) we saw the first plants of *Dryopteris cristata*, growing with *D. carthusiana, Equisetum fluviatile* and an abundance of *Thelypteris palustris.* Scattered throughout the fen were fine specimens of *Osmunda regalis.* A path by one of the drains (63/365218) led us to the moored flat-bottomed boats that were to be our main transport for the day. Along this path several of us were delighted to see swallowtail butterflies *(Papilio machaon)*, so rare nationally, yet so abundant here. Before getting into the boats, a detour was made into nearby birch scrub (63/365213) where there was more *Osmunda* and *Thelypteris,* but also *Athyrium filix-femina* and the two hybrids, *Dryopteris* x *deweveri* and *D.* x *uliginosa* growing with the parent species.

Travelling in a flat-bottomed boat, going down the dyke and the River Ant as far as How Hill and Reedham Marsh, proved very enjoyable. Passing through the reed marshes we saw two men harvesting both the reeds *(Phragmites australis)* and the saw-sedge *(Cladium mariscus)* and learnt that the tough saw-sedge was reserved for the ridge capping of thatched roofs while the reed was used for the pitch. The vegetation down the Ant valley is evidently the typical sub-community of the tall-herb fen that is so characteristic of the Broads. Marked by an abundance of *Phragmites australis* and *Peucedanum palustris* (milk-parsley), the food plant for the caterpillars of the swallowtail butterfly, it supports *Thelypteris palustris* in fair quantity as was observed in the Catfield Fens. At intervals, however, patches of birch woodland growing on slightly raised ground replace the tall-herb fen. Marked by hummocks of *Sphagnum* bog, it was this habitat that was home to *Dryopteris cristata*. Our first drop-off point, at 63/369207, was therefore near two stands of birch scrub where *D. cristata* was growing with *Osmunda regalis, Thelypteris palustris, Dryopteris filix-mas* and our first *Ophioglossum vulgatum.*

At How Hill we stopped for a picnic lunch and a number of us took the opportunity of visiting Toad Hole Cottage, an old eel-catcher's cottage, with tiny windows and low, sloping ceilings. In the afternoon one group opted for a special bird-observing run

while the other continued the search for *Dryopteris cristata*. Birch scrub by Windmill Fen (63/368189) produced more of this rare fern, growing with *Thelypteris palustris,* but it was Little Reedham Marsh at 63/368186 that produced the greatest surprise. Both *Dryopteris carthusiana* and *D. cristata* were found, but also *Ophioglossum vulgatum* – up to 50 plants in spore – growing on slightly raised hummocks of ground amongst reed stems that stood 1.5m tall. These stems had to be parted to see the *Ophioglossum* and many of its fertile spikes reached 25cm in height.

photo: J.C. Vogel

Norfolk Broads
On land: Alison Paul, Mary Gibby, Jacquie Holmes. *In boat:* Jo Parmenter, Jessica Barrett, Steve & Karen Munyard, Rose Murphy, Kate Crane, Rose Pride

Further stops were made and the searches among reeds and in birch scrub took longer than expected so it was not till 6.30 p.m. that we stopped for a much-needed cup of tea. Refreshed, we decided to go on and visit the Ebb and Flow Marshes at Horning (63/365161). These were the best. *Dryopteris carthusiana, D. cristata, Osmunda regalis* and *Thelypteris palustris* were everywhere. *Ophioglossum vulgatum* grew on the mounds above the general level of the marsh and a marsh harrier was seen in the distance. On our way back to the cars, two of us forgot ferns for a moment to look at the scarce marsh pea *(Lathyrus palustris)* in full flower. The day ended with extremely good food at what seemed to be the most popular pub in the whole of Norfolk!

On Sunday we were joined by Alec Bull, BSBI recorder for East Norfolk, and Bob Ellis, who are working together on a Tetrad Flora of Norfolk. They wished to record on the reserves we were to visit that day. Most of the morning was spent surveying the marshes on the west side of Hickling Broad, approaching them along a tree-lined country track (63/409212). *Dryopteris dilatata, D. filix-mas, Equisetum arvense* and *Polypodium interjectum* were all to be seen here. At the end of the track there stood an old disused mill, so encrusted with lichens that it attracted much attention. Birch scrub and fen were searched with much success. *Athyrium filix-femina, Blechnum spicant, Dryopteris filix-mas, D. carthusiana, D. cristata, D. dilatata, D.* x *deweveri,*

Ophioglossum vulgatum (on a hummock at 63/413210), *Osmunda regalis* and *Thelypteris palustris* were all to be seen.

Before lunch a short visit was made to Mrs Myhill's Marsh (63/400212). The usual ferns were seen in the wooded area and *Equisetum fluviatile* and *E. palustre* were seen in the marsh. A good discussion was held concerning the identification of *D.* x *deweveri.*

Lunch was at Horsey Mill, a National Trust property. Those able to stay for the afternoon divided into three groups, each going to a different area.

One group went with Phil Heath to Winterton-on-Sea (63/494197) and explored the Winterton Dunes National Nature Reserve. Stunted oak and birch, gorse and *Calluna* provided a habitat for *Dryopteris dilatata* and *Polypodium vulgare.* The attractive grey hair-grass, *Corynephorus canescens,* is a feature of these dunes and is a national rarity. Winterton Dunes is one of the best dune systems in the UK, having the range of fore-dunes, dunes and slacks through to grazing land. Unfortunately, the whole area of dunes and heath has dried out as a result of the treatment of the grazing land that lies on the estate inland from here; it was ploughed and deep-drained about twenty years ago. Possibly as a result of this, old records of *D. cristata* here were not substantiated; only *D. dilatata* was found growing under the willows and birches in depressions in the dune-slacks. There are a number of pools in the slacks dug some years ago for natterjack toads; the toads were abundant and very vocal. *Osmunda regalis* was also plentiful in this area (63/486217) with several large populations of mature plants and sporelings. Before leaving, Phil showed us a quite extensive colony of *Ophioglossum vulgatum* at the edge of some *Salix* scrub (63/484218).

photo: J.C. Vogel

Dryopteris cristata, Norfolk Broads

Richard Starling (Norfolk Wildlife Trust warden) and his wife took the second group by boat to Martham North Broads (63/4620). Marsh fern was abundant over a wide area, but the only other fern recorded was *Dryopteris dilatata* under a clump of ash trees. Although no *D. cristata* was found, the group was excited to see a male bittern flying across the water. A barn owl nesting in an old boat shed also added interest to the visit.

The remaining party accompanied Robin Long, the National Trust warden, to Breydon Marsh, taking a boat from Horsey Staithe across Horsey Mere. Breydon Marsh is a sensitive area as there are bittern in residence, but none were seen. There was also little *Dryopteris cristata* and what there was, was sprayed with mud; it is apparently

declining due to being smothered with mud/ochre deposited on the banks after dredging of the waterways.

There was a final, rather wet (the rain had held off until now) rendezvous back at Horsey Mill to compare notes. This report, however, cannot be said to be complete without extending grateful thanks to Jo Parmenter and Phil Heath for the work they put in to make this meeting such a success, to the Broads Authority for loan of the boats, and to Clive Jermy for the tremendous organisation and for sharing with us his knowledge of the fens.

PEAK DISTRICT, DERBYSHIRE – 9-10 August **Trevor Taylor**

On the morning of Saturday August 9th a select group of nine pteridologists assembled outside Manor Barn, the English Nature office in the Peak District village of Over Haddon near Bakewell, before setting off to explore a series of man-made habitats and to look at the various pteridophytes that have colonised them.

At Brassington Bee Nest Mines SSSI (43/2454) the party met up with a few local BPS members and guests including Dr Alan Willmot, the newly appointed BSBI vice-county recorder, who took the opportunity to record the day's finds for the BSBI's Atlas 2000 project. The disused silica sandpit is an important Derbyshire site as it supports all three species of clubmosses that occur in the county. *Huperzia selago,* fir clubmoss and *Diphasiastrum alpinum*, alpine clubmoss, were observed in some quantity and while inspecting the glaucous mats of *D. alpinum* on a level plateau area at 43/239547 Alison Paul discovered a few scattered plants of *Ophioglossum vulgatum*, adder's tongue, which was quite remarkable in that the species had not been recorded before at this rather well-monitored site. Unfortunately, due presumably to the hot dry summers of the past two years, the previously sizeable population of *Lycopodium clavatum*, stag's horn clubmoss, had been greatly reduced to a few fragmented trailing stems concentrated mainly in the shade of gorse where a few strobili were evident. Crowns of *Athyrium filix-femina*, lady fern, *Dryopteris filix-mas*, male fern, and *D. dilatata*, broad buckler fern, were found growing together in the region of a derelict wooden hut while *Equisetum fluviatile*, water horsetail, was abundant around the margins of a small pond on the edge of the site. *E. arvense*, field horsetail, was scattered throughout.

The party moved on to an area of disused mine workings nearby at 43/237547, where a reasonable quantity of *Botrychium lunaria*, moonwort, was still evident, though rather tatty, among a delightful late-flowering display of *Coeloglossum viride*, frog orchid. By this time the temperature was soaring and a visit to the cool confines of the village pub for lunch and refreshments proved a welcome retreat as well as adding *Asplenium trichomanes* subsp. *quadrivalens*, maidenhair spleenwort, and *A. ruta-muraria*, wall rue, to the list as they grew on the mortared walls outside the pub door.

The afternoon was spent on the dismantled railway line which forms part of the Tissington Trail at 43/155549. A previous record for *Polystichum setiferum* proved elusive but *Cystopteris fragilis*, brittle bladder fern, and *Asplenium scolopendrium*, hart's tongue, were noted while Andrew Leonard daringly scaled the near-vertical railway cutting to provide some impressively large fronds of *Polypodium interjectum,* intermediate polypody, with distinctly serrate pinnae.

Further along the dismantled railway line towards Biggin one of only two Derbyshire sites for *Dryopteris submontana*, rigid buckler fern, was visited at 43/161578. A total of eleven healthy, well established clumps were counted growing out of crevices in the limestone cutting. On the opposite side of the cutting several lush clumps of *Asplenium*

adiantum-nigrum, black spleenwort, were noted growing in the shade provided by some ash saplings under which everyone rested as the sizzling heat from the afternoon sun was by now almost unbearable. On the walk back to the vehicles *Polystichum aculeatum*, hard shield fern, was found.

On returning to Over Haddon, two of the party went to check on the well-known long-established population of *Asplenium ceterach*, rustyback, in Lathkill Dale to find six small, very shrivelled clumps almost entirely desiccated by the heat.

The long day was rounded off perfectly, exchanging stories over an evening meal outside the village pub in Monyash on a warm summer's evening.

photo: J.M. Ide

Philip Hammond, Andrew Leonard, Grace Wheeldon and Keith Holly admiring colony of *Polypodium interjectum* beside the River Wye near Chee Dale.

Sunday morning found everyone suitably refreshed, with the possible exception of Andrew Leonard whose hotel accommodation was, apparently, the venue for a late-night party led by a Bontempi organ! The party, which was joined by Barbara Porter, gathered at Topley Pike (43/112724) with its dramatic views over Chee Dale and the River Wye for a day exploring the natural habitats of the limestone dales in the morning followed by a trip to look at the contrasting fern flora of a gritstone clough in the afternoon. As the party descended into Chee Dale a small but healthy population of *Asplenium trichomanes-ramosum*, green spleenwort, was observed growing in the sheltered crevices at the base of the limestone outcrops at 43/114724, much to the delight of American member Philip Hammond, his first encounter with the species. A stunning display of several hundred fronds of *Gymnocarpium robertianum*, limestone oak fern, was the cause of much photographic activity, the large size of the individual fronds taking everyone by surprise – a marvellous sight. After much deliberation over a rather unusually shaggy looking *Polystichum* a frond was taken away to be checked for any evidence of hybridisation. Closer inspection revealed it merely to be *P. aculeatum,* of which more typical specimens were found in the rocky woods alongside the River Wye. A large, vigorous stand of *Polypodium* was carefully examined for possible

hybrids, but all fronds checked seemed to be *P. interjectum.* Amongst the polypods some particularly large clumps of *Aspenium trichomanes* were noted.

As the temperatures again began to soar, a pub lunch in the village of Tideswell provided a welcome retreat on the way to view the ferns of a typical millstone-grit clough at Abney (43/198799).

Oreopteris limbosperma, lemon-scented fern, was the first species to be encountered growing in some quantity alongside the brook. At the side of the path on the south side of the brook, growing in a shaded rock crevice, a small but long-established colony of the delicate fern featured in the BPS logo, *Gymnocarpium dryopteris,* oak fern, was admired by everyone. *Pteridium aquilinum*, bracken, and *Blechnum spicant*, hard fern, were noted before crossing back over the brook and proceeding eastwards along the footpath passing a few plants of *Asplenium adiantum-nigrum* on a field retaining wall.

Specimens of *Dryopteris affinis,* scaly male fern, were the cause of much deliberation. They proved to be subsp. *borreri*. A spectacular display of *Phegopteris connectilis,* beech fern, with many stunningly large fronds growing in shade on the bank of the brook at 43/205798 had everyone reaching for their cameras and provided a grand finale to an excellent and very enjoyable weekend amidst some beautiful scenery during which a total of twenty-six species were recorded.

[*Many thanks to Trevor Taylor for organising such an excellent meeting. Ed.*]

NORTH-EAST SCOTLAND – 13-18 July — Paul Ripley

Disappointing attendance at this meeting led by Ted Munyard at least meant that I could enjoy Ted and Thea's excellent and kind hospitality. I also had several chances to see Ted's remarkable garden. Ferns are well displayed in an indoor garden converted from an animal shed. Outside I was impressed by *Asplenium ceterach* growing well in an old wall, and by a very fine *Polystichum lonchitis*. Ted is creating a four to five acre area of woodland, featuring in particular his growing collection of oaks. In this very agricultural area of north-east Scotland, it will become a rich and natural landmark within a few years. Surely a remarkable achievement by a man with vision.

The sites visited on this meeting were mainly those seen at a previous meeting in 1990.

14 July. Muir of Dinnet National Nature Reserve, Burn o' Vat. (37/430997) We followed the Burn up to the 'Vat', which is a remarkable round chamber derived from the rupture of a wall of a pool formed at the base of a waterfall. Behind this waterfall lies Rob Roy's cave. Unfortunately it was Kilder Roy, a local sheep stealer who had given his name to the cave, but it is still a fascinating local feature. We persuaded the local machos to brave the water in search of *Hymenophyllum*, but none was found. *Oreopteris limbosperma, Blechnum spicant* and *Pteridium aquilinum* were common here, and *Equisetum sylvaticum, Phegopteris connectilis* and *Gymnocarpium dryopteris* common in the mossy grass. *Dryopteris dilatata, D. filix-mas, D. affinis* (morphotypes *cambrensis* and *borreri*) and *Athyrium filix-femina* were not uncommon. *Polypodium vulgare* was prominent on rocky outcrops and *Huperzia selago* was occasionally seen.

Linn of Dee and Linn of Quoich. We visited both these sites in the afternoon; a linn is a narrow rocky gorge. On the road to the Linn of Dee (37/095894), *Lycopodium clavatum* was happily colonising (with larch saplings) a recently excavated roadside bank. At the Linn of Quoich (37/115913), we saw the same species as at Burn o' Vat, but additionally *Cystopteris fragilis* and *Equisetum arvense. Blechnum spicant* was

particularly abundant. However, the main reason for our visit was to see *Polystichum lonchitis*. In spite of a recent small landslip three good plants were seen, though lower than recorded previously, along with two or three recent sporelings.

15 July. Bennachie. Bennachie is the mountain which dominates much of Aberdeenshire. In the morning we ascended a burn through pine forest, passing *Athyrium filix-femina, Dryopteris filix-mas, D. dilatata, D. affinis (borreri* and *cambrensis), Blechnum spicant* and *Pteridium aquilinum*. Out of the forest, and towards the top of Oxen Craigs (38/622245) (528m), we found *Huperzia selago* and *Lycopodium annotinum*. Stunted blechnums and occasional *Dryopteris affinis* were common, but near the summit, *D. dilatata* was growing with *D. expansa* in rock clefts. This *D. expansa* was not the delicate lacy form usually described, but the almost lime-green, *D. carthusiana* - like plants that we saw in Argyll with Hugh Corley in 1996.

Aberdeen environs. Peter Hainsworth joined us at lunch, and we saw the coastal cave near Aberdeen, just as described by G. Dickie in his book *(Botanist's Guide)* of 1860. It was a magical moment, in spite of the rain, to stand just like Dr Dickie and admire the extraordinary greenery surviving in this ordinary cave in a very ordinary coastal bay. *Cystopteris dickieana,* with its characteristic rounded pinnules and triangular pinnae, was flourishing in the moist cracks in the cave walls and roof, together with *Asplenium marinum* and *Athyrium filix-femina. C. dickieana* and *A. marinum* have both been grown from the spore-laden sludge that coats the walls of this cave.

We stopped on the way home at Hazlehead (38/893043). In this mixed, but mostly coniferous wood, *Dryopteris dilatata* was the dominant plant. We also found *D. filix-mas, D. affinis* agg., *Blechnum spicant* and *Polypodium vulgare* (which also grows in profusion along the dry-stone walls in the area). Ted was lucky enough to find three adjacent plants of *Athyrium filix-femina* showing cresting and 'Grandiceps' characters.

16 July. Glen Prosen. We travelled via Kirriemuir to Glen Prosen, where we were met by Heather McHaffie from Edinburgh University. Not stopping to examine a fine stand of *Dryopteris affinis,* we travelled up Glen Prosen, initially in Heather's four-wheel drive vehicle and then for about one and a half hours on foot. We passed *Blechnum spicant, Pteridium aquilinum, Equisetum sylvaticum, E. palustre* and *E. pratense* on our walk, the latter growing sparsely through grass beside a burn.

Higher up we found crags, under which *Phegopteris connectilis* was common, with *Gymnocarpium dryopteris* under one of them. On scarcely accessible crags we saw *Athyrium filix-femina* and *Dryopteris oreades,* growing only where they were out of reach of deer and sheep. In fact we saw about 50 hinds (a spectacular sight) on our way to the site at 37/235734 where Heather has been studying a colony of *Athyrium distentifolium* var. *flexile* and var. *distentifolium*. Her article in the *Pteridologist* (1997, Vol. 3: 88-91) gives a fascinating account of her studies at this site. She is also measuring frond length and correlating growth rates with temperature etc.

Oreopteris limbosperma was seen, but was surprisingly scarce. Steven (Ted's grandson) and I climbed Mayer (927m) from where spectacular views over the Cairngorm range, the Central Highlands, and south towards Fife and even across the Firth of Forth were obtained. I failed to find *Diphasiastrum alpinum,* noted by Heather to carpet the ground in places near the summit.

17 July. North-east coast. Before Peter left us we visited some sites in the area behind the coast from Methlick to the Moray Firth. This is rich farming land, but relieved by low mountains to the west, with some forestry plantations and steep wooded valleys.

Stopping first at a quarry near St John's Wells (38/781367), we saw *Dryopteris dilatata, D. filix-mas, D. affinis* morphotype *borreri* and *Polypodium vulgare*. A little further on *Equisetum sylvaticum* was growing in abundance by the roadside. We stopped nearby in a wood (38/779368) where extremely fine specimens of *Dryopteris dilatata* were abundant. In addition to the ferns above, we also found *Blechnum spicant, Athyrium filix-femina* and *Pteridium aquilinum*. In a steep wooded hillside near Bridge of Marnoch (38/585465), we found all the above species, plus *Oreopteris limbosperma*. A wall near the site, which had had a good colony of *Asplenium trichomanes* on a previous visit, appears to have been replaced by a new barn. We stopped to admire a fine specimen of flame flower, *Tropaeolum speciosum*, before lunch, and also to see *Asplenium ruta-muraria* growing happily on walls in the village of Fordyce.

At Spey Bay we explored the old railway bridge over the river (38/3564). *Polypodium vulgare* was seen here, but not the undulating variety seen on previous visits. In the bed of the Spey flood damage was evident, but along the old railway we found *Athyrium filix-femina, Dryopteris filix-mas, D. dilatata, Pteridium aquilinum*, and *D. affinis* morphotypes *borreri* and *cambrensis*. A word should be added here on the *D. affinis* in this area. I did not (knowingly) see morphotype *affinis* at any of the sites during the week, but *cambrensis* and *borreri* were common. The latter appeared to take two forms, one typical with square-cut pinnules, the other with longer pinnules and characteristically dark stipes, presumably the shade form. What was remarkable was the extreme constancy of the three types. They appeared, without variation, at every site reported. While some would probably not agree, I find it difficult to escape the conclusion that the *D. affinis* group represents a superimposition of more or less distinct, more or less geographically separated clones, on the clearly genetically based major divisions (e.g. *borreri, cambrensis, affinis*).

After Peter left us, and before returning home, we stopped to visit the unusual earth pillars on the steep slopes of the Spey valley. A rich ferny gully had been washed away by the heavy rains earlier in the month, thus depriving us (!) of the opportunity to spend even more time studying *D. affinis*. We did see *D. affinis* morphotype *borreri, D. filix-mas* and *D. dilatata*.

18 July. Colonel's Bed, Upper Deeside. The *pièce de résistance* of the whole week was a visit to this very special site. The Colonel's Bed (37/087871) is a narrow gorge, deeper than the linns seen earlier, where ferns flourish, protected from grazing in the damp atmosphere, and where base-rich flushes enrich the already broad range of species. We found *Huperzia selago, Equisetum sylvaticum, E. pratense* (the latter two horsetails growing together in quite an open area towards the top of the gorge), *Athyrium filix-femina, Gymnocarpium dryopteris, Phegopteris connectilis, Polypodium vulgare, Oreopteris limbosperma, Blechnum spicant, Asplenium trichomanes-ramosum, Cystopteris fragilis, Polystichum lonchitis, Dryopteris dilatata* and *D. affinis* (?morphotype *cambrensis*). The magic of this site was enhanced by the presence of an Adonis blue butterfly, which obligingly posed for a close-up photograph. The *D. aemula* previously found by Ted and Steve Munyard was not found on this visit, but further away from the burn Ted found *Lycopodium clavatum, Selaginella selaginoides* and *Equisetum arvense*.

So ended a most enjoyable and rewarding week. It is a pity that more members were unable to visit this rich area of Scotland. I am very grateful to Ted Munyard for his research and knowledge, freely imparted and for his always enjoyable company, also to Ted and Thea, his wife, for their kind and generous hospitality which made the week for me truly memorable. Thank you both.

Pteridophytes recorded during north-east Scotland meeting, July 1997

	Muir of Dinnet	Linns (Dee & Quoich)	Bennachie	Sea cave	Hazlehead	Glen Prosen	St John's Wells	Bridge of Marnoch	Spey Bay	Colonel's Bed
Diphasiastrum alpinum						(+)				
Huperzia selago	+		++			+				+
Lycopodium annotinum			+							
L. clavatum		+				+				(+)
Selaginella selaginoides										(+)
Equisetum arvense		++								(+)
E. palustre						+				
E. pratense						+				+
E. sylvaticum	+					++	+			+
Asplenium marinum				++						
A. ruta-muraria									+	
A. trichomanes								(+)		
A. trichomanes-ramosum										+
Athyrium filix-femina	+++	++	++		+	+			++	+
A. distentifolium var. distentifolium						+				
A. distentifolium var. flexile						+				
Blechnum spicant	+++	+++	+++		+	++	+			+++
Cystopteris dickieana				++						
C. fragilis		+								+
Dryopteris aemula										(+)
D. affinis borreri	++	++*	++		+		++	++	++	
D. affinis cambrensis	++		++						+	+
D. dilatata	++		+++		+++		+++	++	++	+
D. expansa			++			+				
D. filix-mas	++		++		++		+++	++	+++	
D. oreades						+				
Gymnocarpium dryopteris	+++	++				+				++
Oreopteris limbosperma	+++	++				++		+		++
Phegopteris connectilis	++	++				++				++
Polypodium vulgare	++				++		++	+	++	++
Polystichum lonchitis		+								+
Pteridium aquilinum	+++	++	+++			++	+	+++	++	

+ occasional, ++ frequent, +++ abundant, (+) reported from this site but not confirmed on this meeting
* morphotype not confirmed

GROUP OF EUROPEAN PTERIDOLOGISTS (GEP) Excursion

Bangor, North Wales – 29 August - 3 September **Alison Paul**

Nigel Brown, Curator of Treborth Botanic Garden, University of North Wales, Bangor, and Clive Jermy organised this excellent meeting. Participants from Belgium, Bulgaria, France, Germany, Italy, Slovakia and UK, most of whom are BPS members, visited a wide range of habitats in this very fern-rich part of North Wales. Sand-dune slacks and boulder-scree, lead/silver mine spoil heaps, acid heath and limestone woodland, sea cliffs and castle walls were but a few of our hunting grounds. Thanks to Nigel's detailed knowledge of the area's geology and flora plus his meticulous planning, we saw over 50 pteridophyte taxa during the four days. The evenings provided further opportunities for discussion following presentations on a wide range of pteridological topics, including conservation.

Vlastimil Mikolas, University Botanic Garden, Kosice, Slovakia, was enabled to participate in this meeting through a grant from the Centenary Fund. This gave him the opportunity to make contacts and discuss common problems, as well as to see Atlantic vegetation, a type unknown in central Europe.

The GEP was established to promote contacts between amateur and professional pteridologists in Europe, to see particular species in different environments and regions than the familiar ones and thus get a better idea of their ecology and distribution, to explore less well known areas for particular ferns or to study particularly 'difficult' complexes in the areas where the 'problems' are.

Anyone interested in receiving further information about the GEP should contact:
Dr R. Viane, Dept. of Morphology, Systematics and Ecology, Section: Pteridology, K.L. Ledeganckstr. 35, B-9000 Belgium.
E-mail: ronnie.viane@rug.ac.be; Tel. & Fax: +32-9-2645057.

photo: J.C. Vogel

Participants in 1997 GEP meeting, Bangor

Standing: Vlastimil Mikolas, Johannes Vogel, Karin Röttgers, Ronnie Viane, Alison Paul, Michel Boudrie, Rob Cooke, Agnes Boudrie, Rosemarie & Michael Zink, Fred Rumsey, Jaques Homes, Stefan Krause, Philip Hammond, Dick Hayward, Herbert Kirsch, Jeff Patteson, Nigel Brown, Carolin van den Heede.
Sitting: Mary Gibby, Martin Rickard, Daniella Ivanova, Esther Homes, Wilfried Bennert, Andrew Leonard, Jane Rutland.

(Not in photo: Pat Acock, Clive Jermy, Anthony & Margo Pigott, Paul Ripley, Mario Soster.)

LECTURE MEETINGS AND DAY VISITS 1997

SPRING INDOOR MEETING, CAMBRIDGE – 1 March

On Saturday 1st March, 45 members and guests assembled in the Gilmour Building, Cambridge University Botanic Garden for the Spring Indoor Meeting. The leader, Margaret Nimmo-Smith, had organised a very interesting day which began with a walk around the Botanic Garden lead by Norman Villis.

After lunch, we settled back to enjoy the first of three speakers. Local member Sylvia Martinelli provided us with a talk entitled 'The Ferns of the Antipodes'. This was a selection of slides illustrating her visit to New Zealand and the Falkland Islands. Views of the terrain and local ferns provided opportunities for much comment and envious thoughts.

Our next speaker was Peter Hovenkamp from the Rijksherbarium, Leiden University, Netherlands who spoke on the polypodiaceous genera of south-east Asia. Peter showed us a wealth of slides illustrating the many species of mainly epiphytic ferns from that fern rich area.

Finally, Andrew Leonard gave an illustrated talk entitled 'The Ferns of Hong Kong'. Again the meeting was treated to superb views of the nature reserve in the National Park. Many of Hong Kong's ferns were shown along with magnificent views of Hong Kong harbour.

Before and after the afternoon's programme, Margaret had arranged a fern bring and buy sale so everyone was able to go home with some new treasures. Thanks are due to Geoff and Marie Winder, Barrie Stevenson and Tim Pyner for their valued assistance with the refreshments and plant sale.

A.R. Busby

HARDY FERNS OF NORTH AMERICA, WARWICK UNIVERSITY – 5 April

Some thirty members and guests assembled at the Institute of Education, University of Warwick, Coventry for a day-long workshop entitled 'Hardy Ferns of North America'.

After a brief introduction from Graham Ackers, Prof. Alastair Wardlaw set the tone for the day with a splendid illustrated talk on his personal experiences as a young emigrant in Canada *c.*1960. He outlined the fern flora of that part of the world, explaining what ferns might be encountered in various parts of Canada.

Alastair then discussed in detail the North American ferns that form the bulk of his own fern collection at his home in Glasgow. He provided a wealth of information on growing these ferns in northern Britain. One of many very useful comments that I found particularly interesting was his experience that it is not necessary to take the plant's native latitude into account if you use mature plants. Alastair backed up his talk with many overhead projector displays and printed handouts for all those attending. He also commented that none of his Canadian ferns have yet spread by spores in his garden. As part of his talk, he circulated a six page hand-out which listed all his North American ferns with comments on their hardiness zones, mentions in literature and their performance in his garden.

Mary Gibby's talk on North American *Dryopteris* (presented on the day and reported here by Graham Ackers) commenced with a reminder of the terms diploid and

polyploid and their significance for the evolution of *Dryopteris* species. Slides were shown of some of the scientists who had helped to sort out the confusion with this group – Dr Stanley Walker, Fred Jackson, Professor Don Britton and Mary herself whilst Stanley Walker's research student! Then followed an account of 13 of the 14 North American *Dryopteris* species; *D. cinnamomea*, whose provenance is really Central American, was excluded.

Comparisons were made with their British counterparts. For example, the question was posed as to whether the North American *D. filix-mas* was really the same species as the taxon occurring in Britain. Furthermore, are the populations of this species occurring in western North America the same as those occurring in the N.E. States? *D. expansa* is a parental taxon that has given rise to *D. dilatata* in Britain and Europe and also to the very similar *D. campyloptera* in North America.

The relationships of the species with other members of the group were discussed, and their ecology illustrated with slides taken both in the field and of specimens in cultivation. Another interesting taxon is *D. marginalis*, which, although not closely related to any of the other species, is able to produce hybrids with ten of them! *D. intermedia* is of interest on account of its close relationship with two Macaronesian taxa – *D. maderensis* and *D. azorica*, which some people regard as subspecies of *D. intermedia*. All three are diploids with fairly similar morphology though with different degrees of hardiness. Mary has speculated that *D. intermedia* is the second parent of *D. campyloptera*, whereas *D. maderensis* and *D. azorica* may be involved in *D. dilatata*.

These examples are merely a few of the fascinating insights into this genus described by Mary. Considering their intrinsic interest and potential horticultural value, it is a pity that only a few of the North American species (and hybrids!) are grown in our British gardens.

Matt Busby then gave a brief talk on a few American species that are not commercially available in Britain. This illustrated talk featured a number of ferns from his collection which had been kindly provided by C.R. Fraser-Jenkins and included *Dryopteris pseudofilix-mas*, *D. fragrans*, *D. wallichiana* (new world form), *D. munchii* and *D. arguta* which according to Prof. Wardlaw, "does not like it too wet". *Polystichum munitum* was considered as just about the hardiest and most obliging fern in British gardens. Other species mentioned were *Polystichum braunii*, *P. imbricans*, *P. lemmonii*, *P. andersonii* (difficulties in getting this fern to propagate from its bulbils on the frond tips were mentioned) and *P. acrostichoides*.

Ray Smith was then asked to comment on his brief experiences with ferns on his visit to Canada in the early eighties. Fortunately, Ray had pressed several fern fronds found during his visit. A common comment during this meeting was that there were no records of fern varieties amongst the ferns of Canada, yet Ray was able to display two fronds of a crested bracken, *Pteridium aquilinum*. A crested form is cultivated in Britain and a notable wild site for it is in a hedgerow near south Birmingham. The British form has small neat cresting but the Canadian form had magnificent long tassels of almost 'polydactyla' proportions.

Graham Ackers then introduced Martin Rickard who had recently received a quantity of colour slides of ferns from the estate of the late Jimmy Dyce. Amongst these slides was a selection taken by the eminent American pteridologist and author, Boughton Cobb. The gathering enjoyed seeing examples of many American ferns and Martin was able to make many comments on their availability and suitability for British collections.

Once again he patiently explained the new thinking on the *Adiantum pedatum* complex. The fact is that true *A. pedatum* comes from the eastern seaboard of the United States of America and is rare in cultivation in Britain. The western seaboard form commonly found in European gardens is *A. aleuticum.*

The meeting ended with a discussion on a proposed survey by Graham Ackers of foreign hardy ferns currently being grown in British gardens. He circulated a paper outlining the proposed survey and an example of the survey form which would be sent out to all members. Many useful comments were made by members at the meeting and noted by Graham so that the various ideas could be incorporated in the final draft of the survey form.

At the close of the meeting members expressed their gratitude and thanks to all the speakers for providing interesting papers, to Brenda Smith, Rita Coughlin and Doreen Brotherton for kindly providing refreshments, and to all who attended, many of whom had travelled long distances. It was agreed that the entire day had been well worthwhile.

A.R. Busby (& R.G. Ackers)

MIDLANDS FERN SHOW, UNIVERSITY OF WARWICK – 26 July

Twenty-two members and guests attended the third Midlands Fern Show, held in the Department of Science Education Building, Westwood Campus, University of Warwick, Coventry.

This meeting is held to encourage members to grow and show their ferns in competitive classes. However, judging from the poor response, there is still much resistance from our members to displaying their expertise in fern cultivation. It was disappointing to see only one entry in class 4 and there was criticism of me for allowing exhibitors to submit more than one entry in each class. I see nothing wrong with this and it does help to fill up the show benches. Other shows permit the same opportunity, the only difference is that they charge you for the extra entries. There are no fees for entering these classes and there is PRIZE MONEY to be won!

Even so I was encouraged to see that this year six exhibitors entered twenty-one exhibits. The judges were Rita Coughlin and Clive Brotherton and the results were:

Class 1 – One Pot Fern (any kind or variety)
1st Mr L. Kirkham, 2nd Mr L. Kirkham, 3rd Mr L. Kirkham (11 entries)

Class 2 – Three Pot Ferns (any kind or variety)
1st Mrs D. Holly, 2nd Mr A. Kyte, 3rd Mr R.J. Smith (3 entries)

Class 3 – One Pot *Equisetum* (any kind or variety)
1st Mr P.J. Acock, 2nd Mrs D. Holly, 3rd Mrs D. Holly (6 entries)

Class 4 – One Pot Aquatic Fern (*Azolla, Salvinia* or *Marsilea* only)
1st Mr P.J. Acock (1 entry)

My thanks to Rita Coughlin, Clive and Doreen Brotherton and Howard Matthews for assisting during the afternoon.

Offers of help and suggestions are always welcome. Details of this fern show are available from the Show Secretary: A.R. Busby, 16 Kirby Corner Road. Canley, Coventry CV4 8GD.

A.R. Busby

AUTUMN INDOOR MEETING, RBG, KEW, SURREY – 18 October

Around thirty members met outside the Jodrell Laboratory, Royal Botanic Gardens, Kew, where Peter Edwards outlined the programme for the first part of the day. We were blessed with one of those magnificent late autumn days with bright sunshine and moderately high temperatures and were surprised how few other people had taken the opportunity to visit Kew that day. We first went to the Alpine House where the ferns, though few, were beautifully set amongst other alpines. We moved on through the Rock Garden, which Peter explained had once been full of ferns. The descendants of lady fern varieties could be discerned by the number that still had the odd tasselling. From there we proceeded to the wooded area which had more ferns including both varieties and species. It was interesting to see how well both *Thelypteris palustris* and *Phegopteris connectilis* grew in moderately dry and sunny situations once established. Our final port of call was the Filmy Fern House where the plants inside continue to flourish, as do those outside that were donated during our Society's centenary.

Following the AGM we could not have had two more matched talks. Firstly, Trevor Walker, our President, gave his retiring address. Trevor showed us how choices he had made throughout his life had led him to the specific areas of study that we know him for. He spoke of the people who had influenced his career, the places he visited and worked in, and also his research. How fortunate we are that Trevor made those particular choices, for it is obvious that the Society would have been infinitely poorer during the past forty years if there had not been the interaction between Trevor and the other professionals of whom he spoke.

photo: A.C. Jermy

John Woodhams, RBG Kew

Our second speaker, John Woodhams, also chose to talk on how his career developed. Once again we could see how lucky the Society has been over the years in its association with RBG, Kew. John spoke of people he had worked with and opportunities he had had. It was interesting to see how so many of the personalities overlapped with those mentioned by Trevor. Once again John delighted us with slides of splendid ferns and memories of the characters that have given us so much pleasure over the years.

We would like to convey our thanks to both our speakers and also to Peter Edwards who once again did all the hard work behind the scenes, including taking a crash course in how to use all the modern technology in the Jodrell Laboratory. It was a great joy to see so many new faces at Kew and it is hoped that we will come to know you better in the years ahead.

Patrick Acock

REGIONAL MEETINGS 1997

MIDLANDS

A.R. Busby

Garden Visit, Worcestershire – 21 September

Due entirely to the kind offer of Olive Mason and the dogged persistence of Margaret Collins, the Midlands Group managed one meeting this year with no credit to me.

On Sunday 21st September, fourteen members and guests took advantage of Olive Mason's invitation to visit her garden at Chaddesley Corbett, near Kidderminster, Worcestershire. It must be three or four years since I last visited this garden and I was surprised and delighted to see how quickly it is maturing; indeed I drove past it twice without recognising it. The garden is a pleasing mix of shrubberies, herb garden, herbaceous beds and lawns, with a generous sprinkling of ferns. I particularly liked the use of ferns planted into a 'stone corner', a very novel way of attractively planting up what might otherwise be a difficult area.

Our thanks to Mr and Mrs Mason for allowing us another visit to their garden and for the delicious refreshments provided.

LEEDS & DISTRICT

West Beck and Fen Bogs near Goathland, North Yorkshire – 7 June

Ken Trewren

On a fine, sunny day eight members assembled at the Mallyan Spout Hotel at the western end of Goathland village (called Aidensfield in the Heartbeat television programme which is filmed in the area). We decided to visit Fen Bogs Nature Reserve in the morning in order to allow more time for the exploration of West Beck in the afternoon.

Heading south-east from Goathland by road we stopped briefly at Moorgates farm to examine the ferns growing on two railway bridges (44/845993). One bridge is virtually covered with *Cystopteris fragilis*, whilst the other supports many plants of *Asplenium trichomanes* subsp. *quadrivalens*. *Cystopteris* is rare in this part of the North York Moors and its presence on this bridge is of particular interest because of an old record (Druce, 1932) from Goathland of *Asplenium obovatum* subsp. *lanceolatum*, the species being recorded as growing on a mortared bridge. Goathland is about ten miles from the sea as the crow flies and a case of mistaken identity is therefore suspected. Other species growing nearby included *Pteridium aquilinum* and *Oreopteris limbosperma*.

At Fen Bogs Nature Reserve, just off the main Pickering to Whitby road (44/852975), we paused to examine *Botrychium lunaria*, a dozen spikes of which were growing in short turf beside a track. One strange specimen had a sterile leaf which forked into three branches, with a few sporangia around the margins of some of the lower pinnules. Further on down the track we noticed *Equisetum arvense*, and *E. palustre* in boggy flushes. Where the track runs into the bog there was a large patch of *Ophioglossum vulgatum* and a little further on, in the middle of the track, we found about 20 spikes of *Selaginella selaginoides* which is also rare in the North York Moors. Other species seen nearby were *Blechnum spicant*, growing on the heathy banks beside the track. *Equisetum fluviatile* in a wet depression in the bog and *Dryopteris carthusiana* in a patch of *Salix* scrub.

In the afternoon we left the hotel and walked along the footpath towards Mallyan Spout waterfall, passing stands of *Equisetum sylvaticum*, *E. arvense*, *E. telmateia* and, most noteworthy of all, a well-known patch of *E. hyemale* (45/825011). On the banks of the stream beside the track there was an abundance of ferns, including *Dryopteris dilatata*, *D. filix-mas*, *D. affinis* subsp. *affinis* and subsp. *borreri* and *Athyrium filix-femina*. These same common ferns, along with *Blechnum* and *Oreopteris*, were seen in abundance throughout the woods in which we were to spend the rest of the day. At the foot of the slope we turned left along the river, where I pointed out a fine patch of the gametophyte stage of *Trichomanes speciosum* growing in a deep, dark cleft in the crags on the lefthand side of the track. A little further on, at the waterfall itself, we found *Polystichum aculeatum* and some fine specimens of *Dryopteris affinis* subsp. *affinis*.

From here we proceeded along the footpath for about a hundred metres, then the group split into two, the more agile members climbing directly up the slope to the foot of the crags whilst the less adventurous – or more sensible – took an easier route to the same point. Our objective was to see the four plants of *Dryopteris aemula* which grow on the rocky outcrop near the crest of the slope. Three of the plants were in excellent condition but one, which was eaten by a grazing animal last year, was only just surviving. Just above the hay-scented bucklers, in birch woodland at the top of the slope, I led members to a large stand of *Dryopteris* x *deweveri*. There was much discussion about the differences between the hybrid and the parent species.

From here we dropped down to the riverbank, then continued westwards for half a mile to some wet crags where four colonies of *Phegopteris connectilis* and two of *Gymnocarpium dryopteris* are known to me, the latter being much reduced in extent over the past three years. On the way back to the waterfall was a large colony of what I believe to be a good candidate for *Polypodium* x *mantoniae*, growing on a boulder on the opposite bank of the river. The identity of this colony is awaiting expert opinion.

Back at the waterfall the party again divided, with some members calling it a day, whilst a few of the more foolhardy followed me along a very rough, overgrown path along the opposite bank of the river to the pretty little village of Beck Hole. Along the way we saw *Polystichum setiferum* in abundance, *Polypodium vulgare* on a tree, *Asplenium scolopendrium* on disused mine workings and a magnificent colony of *Trichomanes speciosum* gametophytes in a deep cleft beside a waterfall.

After taking much needed refreshment at the pub at Beck Hole we walked over the railway bridge to see *Asplenium adiantum-nigrum* and *A. ruta-muraria* growing on a wall beside the road (45/821023), before following the track of the disused railway for two miles back to Goathland. Although it had been a long day, the weather had been fine, and we had seen 31 or 32 taxa (depending upon the identity of the *Polypodium*). We wonder whether this is a record for a BPS outing? Does anyone claim to have beaten this total?

Levisham, North York Moors – 5 July

Barry Wright

On a fine, sunny day we met near the pub in the remarkably remote village of Levisham, the access being made via a narrow and very steep road. It was a painfully frustrating day for Ken Trewren as he patiently tried to show us the finer points of identifying *Dryopteris affinis* morphotypes, since we nearly always got the identification wrong when he posed the question "which morphotype is this?" It didn't help that he pointed to an unusual specimen which did not seem to conform to the characteristics of one of the accepted forms. This we came to know and love as 'morphotype Mulgrave' or 'that one again'.

The morning took us into Newtondale (44/818905) where we parked in the station car park. After watching a steam locomotive pull out we set off southwards down a path to the west of the railway line. Recent heavy rain had made the steep and uneven path very muddy and slippery, making it difficult to look for ferns for fear of gliding majestically past your companions on the way to an undignified end at the bottom of the hill. We did however see a good range of species including *Dryopteris dilatata, Blechnum spicant, Athyrium filix-femina, Equisetum arvense, E. sylvaticum* and *Pteridium aquilinum*. But what we had gone to see was *Dryopteris* x *deweveri*. This we found in some scrubby alder *(Alnus glutinosa)* wood in the valley bottom. It was growing with one of its parents, *Dryopteris carthusiana*, around the bases of the coppiced trees where it received less attention from the cattle which are allowed free access to the area.

After a pleasant lunch watching the trains puff in and out of the station we moved back to Levisham for the longer excursion of a clockwise loop which began by heading north along Limpsey Gate Lane to Dundale Griff (44/833918). How many different words are there in our language for a valley? This dry ghyll was a shady and cool area festooned with ferns, including *Blechnum spicant, Dryopteris dilatata, Athyrium filix-femina, Oreopteris limbosperma, Polystichum aculeatum, Gymnocarpium dryopteris* and *Dryopteris affinis* subsp. *borreri*. An odd mixture of calcicolous and calcifugous species all in the same clough.

After leaving Dundale Griff we climbed and skirted round Far Black Rigg to arrive near the head of Black Griff (44/842915). Here we entered *D. affinis* country in earnest. Ignoring 'that one again' we are fairly sure we saw *D. affinis* morphotypes *borreri, paleaceolobata, affinis* and *robusta*. The *paleaceolobata* was particularly notable, standing some 1.8m tall. This site also supported *Blechnum spicant, Dryopteris dilatata, Athyrium filix-femina, Polystichum aculeatum, Gymnocarpium dryopteris, Dryopteris filix-mas, Asplenium scolopendrium* and *Polypodium vulgare*.

The long, hot scramble back took us past a limestone outcrop (44/841908) supporting several colonies of *Asplenium adiantum-nigrum*.

Thieveley Escarpment, near Todmorden, West Yorkshire – 16 August

Richard Unett

Towards the end of 1996 Clive Jermy wrote to the Leeds Group suggesting that it might be able to help with the production of Atlas 2000 by checking old (pre-1950) fern records in the *Atlas of Ferns of the British Isles*. After some preliminary listing, square 34/82 was selected as there were ten pre-1950 records to be checked and a further sixteen species not recorded for the square that might well be found there.

The meeting had its origins back in May when Barry Wright and I made a reconnaissance visit to the area with the object of looking for sites for *Botrychium lunaria* and *Ophioglossum vulgatum*. Both of these species are known to be readily eaten by sheep, so it was imperative to look for these before the sheep were turned out onto the fields. Unfortunately we did not find any *Botrychium*, but succeeded in finding a field (34/836232) that contained numerous patches of *Ophioglossum vulgatum*. Extensive agricultural improvement in the area has left many fields looking too fertile and green to justify spending precious search time.

Checking with the BSBI vice-county recorder revealed that most of the old records were on the Thieveley Escarpment which runs from Beater Clough (34/897263) to

Dean Scout (34/873278), so we decided to search the foot and the top of the escarpment and the nearby woods.

A party of twelve met near Portsmouth (Yorks. not Hants.) and searched along the bottom of the escarpment. Bracken *(Pteridium aquilinum)* was, of course, ubiquitous. The other common ferns were *Athyrium filix-femina*, *Blechnum spicant*, *Dryopteris affinis* subsp. *affinis*, *D. filix-mas* and *D. dilatata*, all scattered along the foot of the cliffs. There were also some plants of *Oreopteris limbosperma* from about the halfway point. We found one plant of *Cryptogramma crispa* in a cleft at the foot of the cliffs (34/886627) though we could find no more in that area, but the ground is well-grazed by sheep. We also found a plant of *Phegopteris connectilis*, again only one. The latter two were pre-1950 records for which we were searching. After lunch we searched the Black Clough in Dodbottom Wood (34/873280). This was likely *Hymenophyllum* country but, alas, we found none. Apart from the ferns already mentioned as common, *Dryopteris affinis* subspp. *borreri* and *robusta* and a plant which was similar to but differed in some respects from *robusta* were recorded. We also found *Asplenium trichomanes* subsp. *quadrivalens*. (*A. trichomanes* was previously recorded for the square but not that subspecies.)

After this, a small party returned along the top of the escarpment hoping to find clubmosses but without success. There were scattered plants of *Blechnum spicant*, *Dryopteris affinis* subsp. *affinis* and *D. dilatata* and, of course, lots of bracken. Finally the party descended to the road via Beater Clough, finding *Asplenium ruta-muraria* (on some walls), *A. scolopendrium*, *Athyrium filix-femina*, *Blechnum spicant*, *Dryopteris affinis* subsp. *affinis*, *D. dilatata*, *Oreopteris limbosperma* and *Phegopteris connectilis* (the last a pre-1950 record) en route. The small colony of *P. connectilis* was tucked under the overhang of a small waterfall near some old mine workings near the head of the clough (34/891258).

The area could repay further attention. There are other old (*c.*1880) *Hymenophyllum* records near Todmorden (34/9424).

Hayburn Wyke, North Yorkshire – 6 September **Barry Wright**

The unforeseen event of the death of Princess Diana meant that this excursion coincided with the funeral. After contacting the expected members we agreed to go ahead with the excursion but to show our respect in the form of two minutes silence at noon. This was done on the shores of the North Sea underneath a colony of *Asplenium marinum*. I am sure that, like me, members will forever associate the two memories, the sad death of Diana and the valiant clinging to life of the spleenwort on these cliffs.

The main objective of the morning trek was to see the most southerly colony of *A. marinum* on the east coast. This is at Hundale Point (55/026948), not an easy approach. It took almost an hour of slipping and sliding over seaweed-coated rocks to reach the cove with the spleenwort. Thankfully no one suffered any injury. The only other pteridophytes were *Equisetum arvense* and *Pteridium aquilinum*.

The afternoon was spent in the woods around Hayburn Wyke (55/007971). This area was much better for ferns. In addition to bracken we also saw some good colonies of *Polystichum setiferum*, *Polypodium vulgare* and *P. interjectum* (both on the same log) and *Asplenium scolopendrium*. Our leader, Ken Trewren, disappeared into a deep, dark hole in search of the gametophyte of *Trichomanes speciosum*. We all took turns to peer down, make appreciative noises and ponder why it never makes fronds anywhere other than its few favoured spots.

A more rewarding find was a colony of *Dryopteris aemula* clinging to a steep, muddy stream valley side. (Do all ferns grow on steep, muddy slopes or is only those that Ken finds?) Parts of this valley also support *Asplenium scolopendrium, Dryopteris dilatata, Athyrium filix-femina* and *Blechnum spicant.*

Ken also subjected us to the '*affinis* problem' again with more of the 'Mulgrave morphotype' as well as the more established *Dryopteris affinis* morphotypes, *affinis* and *borerri.* He also pointed out *Dryopteris* x *complexa,* the hybrid between *D. affinis* and *D. filix-mas.* Which morphotype of *D. affinis* was in the hybrid has yet to be determined.

All in all an interesting and rewarding excursion. Thanks to Ken for his efforts which left most of us thoroughly 'pteridologged'.

WESSEX

Jim Jarvis

Forest of Dean, Gloucestershire – 2 August

We met at the car park at Cannop Ponds (32/610108) and walked along the cycle track towards the stone works and Parkend. At the stone works we left the track and entered the lower part of the Nagshead Nature Reserve. The path follows the stream through wet, shaded woodland with most of the ferns growing in the banks of the stream or close to it. Nothing unusual, but many fine specimens of *Athyrium filix-femina,* and *Dryopteris dilatata,* very attractively sited, which provided ideal resting places for a number of male beautiful demoiselles *(Calopteryx virgo).* We walked on into Parkend for a pint with our sandwiches.

After lunch we made our way back through the RSPB Reserve on Nagshead Hill. We didn't see a single pied flycatcher, in fact we saw very few birds all day, and the ferns were thin on the ground until we reached the edge of the Reserve where the track starts the long, gentle fall back to the bottom of Bix Slade. Except for bracken most of the ferns were confined to the uphill bank of the track, mostly *Oreopteris limbosperma* with *Blechnum spicant, Dryopteris affinis, D. dilatata* and *D. filix-mas.*

From the stone works we walked up the west side of the Cannop Ponds to look at the *Equisetum sylvaticum* site. For a moment we thought it had gone but after a good look around realised that the centre of the clump had died out and that the plant had spread up the bank and was hidden in the bracken.

During the day we saw *Asplenium ruta-muraria, A. scolopendrium, A. trichomanes, Athyrium filix-femina, Dryopteris affinis, D. dilatata, D. filix-mas, Oreopteris limbosperma, Equisetum arvense, E. fluviatile, E. sylvaticum, Polypodium interjectum* and *Pteridium aquilinum.*

May Hill, Gloucestershire – 3 August

It was not a good day to climb May Hill (32/6921); rain threatened, and mist and cloud reduced the visibility to less than a mile and the usual reward for the effort is the view from the top. We eventually made our way onto the path across the top of Newent Woods following up a vague report of *Phegopteris connectilis.* I didn't expect to find any and we didn't, but the slope is north-east facing, usually a good aspect, and there is a record in the original Gloucestershire flora. The usual woodland ferns were there in abundance and we did find *Equisetum sylvaticum* but didn't stop to gauge the extent of the stand because of the worsening weather.

SOUTH-EAST

Rye Harbour Local Nature Reserve, East Sussex – 24 May — Rob Cooke

(Leader: Rob Cooke)

About ten members and friends met on a sunny but bracing spring day to explore Rye Harbour Local Nature Reserve. We were delighted to be met and guided around by the warden of the site, Dr Barry Yates. Rye Harbour is an important coastal site, of note for its vegetated shingle and birds, and the eagle-eyed amongst us were lucky enough to see a hobby quartering one of the flooded gravel pits.

This was a meeting to investigate what was there, rather than to visit known plants. We first visited some drainage ditches where we nearly trod on *Ophioglossum vulgatum*, and Patrick (who else!) was soon wallowing in horsetails (*Equisetum arvense*, *E. fluviatile* and *E. palustre*).

In particular we wanted to explore the walls of Camber Castle, a Norman castle within the site, and we were very grateful to be allowed unrestricted access to the castle by the warden; it is not open to the public so we were very privileged. Unfortunately the walls at Camber have previously suffered from some over-zealous 'restoration' work and most of the plants had been removed, including one nationally rare vascular plant. However, a detailed search did reveal *Asplenium adiantum-nigrum*, *A. ruta-muraria*, *A. trichomanes* subsp. *quadrivalens* and *A. scolopendrium*. Although *Polypodium cambricum* grows in abundance nearby at Winchelsea we did not find any here – I wonder if it was present before the walls were 'cleaned'.

Although only eight species were seen it was a glorious day and the visit to Camber Castle alone made the trip worthwhile. I would like to extend my thanks on behalf of the group to Barry Yates for giving up a Saturday morning and allowing us onto the site and in particular into Camber Castle.

Selborne, Alton, Hampshire – 14 June — Patrick Acock

Over two dozen members from all over the south-east met in the car park at Selborne. We started the morning by walking around Long Leigh (41/745342), an area of streamside meadows and woodland where the interesting geology of the area was made manifest by surface soil variation and a diverse flora. *Equisetum arvense* and *E. telmateia* were amongst the horsetails observed. Many of the most common woodland ferns found on neutral to basic soils were seen but then there was *Blechnum spicant* on an acid outcrop.

Before lunch, a carload of us visited Sotherington Lane (41/755332) where we saw *Polystichum aculeatum* in profusion with many of the morning's ferns as well as *Polypodium interjectum*.

After lunch we walked down to Sir Henry Peto's garden that had delighted us so a few years ago. In this natural wooded ferny valley Henry has complemented the natural ferns with a wealth of varieties and exotic hardy ferns. The collection has been greatly extended with many of the larger ferns being divided and introduced in new areas of the valley. Henry explained that he has bequeathed the collection as a whole to stop it being broken up. He still attends to the gardens entirely on his own including trimming the 20-foot enclosing hedge. Following a look around the vegetable and fruit garden, Henry and his wife entertained us to a magnificent cream tea.

On dispersing, Andrew Leonard insisted that we continue ferning until bedtime and led us to Upper Farringdon (41/714351) to look at the magnificent *Asplenium ceterach* on a house wall and we were invited in to see if there was anything else in the garden. From there we proceeded to a railway bridge (41/674287) to look at an *A. adiantum-nigrum* pouring out of the ageing mortar. From here we were cajoled to proceed to another wall surrounding a large house where many aspleniums were seen including magnificent colonies of *A. trichomanes.* By this time the ladies were getting restless and exploration of a further wall had to be postponed until a later date.

Our sincere thanks go to Paul Ripley for leading the morning, Henry and his wife for allowing us to view their lovely home and for feeding us, and to Andrew for slotting in a few extras.

Amberley Wild Brooks, near Arundel, West Sussex – 12 July. Patrick Acock

About a dozen of us met in Amberley village (51/030133) to be shown around Amberley Wild Brooks by Rob Cooke. An old peat meadow has reverted to woodland, mainly willow scrub, over the last 100 years, as ownership has been lost. Rob had taken us to a corner of the wood and was explaining that *Thelypteris palustris* had not been seen for a large number of years, when Howard Matthews asked whether it was not *Thelypteris palustris* under his foot – and of course it was! Transecting the wood failed to find another patch but at least the record was re-established. Drying of the soil had allowed nettles and balsam to encroach. The only horsetail found was *Equisetum fluviatile* but the umbellifers were many and varied; Patrick undertook a thorough search for *Azolla* in one of the ditches!

In the village *Polypodium cambricum* was observed on many walls along with the common spleenworts.

After a full lunch we moved on to Houghton (51/018116) and walked along the River Arun to South Stoke to look for *Ophioglossum vulgatum.* On the way the understorey of the beech wood was packed with *Asplenium scolopendrium* and a frond was plucked and measured to be 3ft 2in. This will be compared with those at Folkestone Warren to see where the largest are. A thorough search of the meadow, newly planted with spruce, cherry and beech, failed to reveal any *Ophioglossum.*

After exchanging ferns, we drove on to West Burton to examine an old wall (51/000140). One particular square foot had *Polypodium cambricum, Asplenium scolopendrium, A. ruta-muraria, A. trichomanes* and *A. adiantum-nigrum.* Whilst examining the wall, the owner appeared in a doorway above us and invited us into the garden. One large *Polypodium* variety was to be found in many parts of the garden, but little else of pteridological interest.

We travelled on to Bignor Hill (41/9813) where, much scratched and battered, we found *Gymnocarpium robertianum* growing much larger than we remembered it under yew trees, but possibly not in exactly the same place. This site for limestone oak fern has been known since 1882.

Thursley National Nature Reserve, Thursley, near Guildford, Surrey
13 September – (Leader: Rob Cooke) **Paul Ripley**

Eight members and friends enjoyed this meeting at one of the classic Surrey heathland sites. We were pleased to be joined by three members of the Surrey Flora Committee, who added local as well as botanical knowledge.

Past The Moat (41/902416) we saw the primary objective of our visit, *Lycopodiella inundata*, thriving on the damp and rather bare peat of this part of the heath. Apart from *Pteridium aquilinum*, ferns were, not surprisingly, few and far between, but in patches, notably near willow carrs by the A3, we found *Dryopteris dilatata*, *D. carthusiana*, *D. filix-mas*, *D. affinis (borreri)*, *Athyrium filix-femina*, and the occasional *Blechnum spicant*. A few clumps of polypodiums were seen. One, with poorly developed sporangia, was possibly *P. interjectum*, but another clump appeared, interestingly, to be *P. vulgare*. A brief search of a Parish Field failed to yield *Ophioglossum*, but the sight of an adder moving slowly away from our path rewarded us.

This nature reserve also has a most remarkable number of dragonfly (and damsel and mayfly) species, and nearby, at Frensham Ponds, all the British species of reptiles can be found. We were pleased to meet colleagues from the Surrey Flora Committee, and very grateful to Rob Cooke for showing us this fascinating and beautiful area of the south-east.

Eridge Rocks, near Tunbridge Wells, Kent – 11 October **Paul Ripley**
(Leaders: Pat Acock & Paul Ripley)

About a dozen members and friends met at Eridge Green, near Tunbridge Wells (51/557356) to visit the well known *Hymenophyllum tunbrigense* site at Eridge Rocks. The Society has contributed £250 towards the purchase of this marvellous area by the Sussex Wildlife Trust [see p. 90] and it was good to see that this remarkable habitat has been preserved, not only for the preservation of wildlife, but also for the enjoyment of visitors. The nearby Harrison's Rocks are much used by climbers. Probably the *Hymenophyllum* sites are safe, but a degree of control over the activities of climbers will need to be exercised.

The *Hymenophyllum* was flourishing in at least five quite large colonies, at least as large as previously seen by Steve Munyard, and many plants were fertile. Other ferns seen at this site were *Dryopteris affinis* morph. *borreri*, *D. dilatata*, *D. filix-mas*, *Polypodium interjectum* (probably), *Blechnum spicant* and *Athyrium filix-femina*. After lunching in Frant (The George is to be recommended for its quality and standard of service), we stopped to look at the colony of *Polystichum aculeatum* on Frant Hill (51/586357), which we are pleased to report is thriving. On the other side of the road is an old bottle tip, but here we found single though well grown plants of *Asplenium scolopendrium* and *Polystichum setiferum*. We also found a number of plants representing the plumose form of *Dryopteris affinis*, which has the matt appearance, thin indusia and relatively sparse scales of morphotype *borreri*, but which is clearly different and may be morphotype *robusta*. We also found *D. filix-mas*. On the other side of the road, behind the *Polystichum aculeatum*, we looked for *Oreopteris* and *Dryopteris* x *deweveri*, but found only *D. dilatata*, *D. filix-mas* and *Blechnum*.

The second half of our meeting was held at Pat Acock's house. After a sumptuous tea and a tour of Pat's always-fascinating garden, Howard Matthews discussed the nomenclature of a fern found at Bridgemere Garden World. Jennifer Ide, Steve Munyard and Paul Ripley showed slides of recent trips, Steve's being of a visit to the Ontario region in Canada which looked very exciting. We were sorry not to be able to visit Rosemary Hibbs as planned, but are most grateful to Pat and his family for their warm and generous hospitality.

EAST ANGLIA

Chippenham Fen, Cambridgeshire – 22 June

Barrie Stevenson

Chippenham Fen is situated to the north-east of Newmarket (52/651692) and is designated a National Nature Reserve administered by English Nature. The Fen, damper than usual this year as a result of a particularly wet June, is in sharp contrast to the well-drained and mainly corn-growing surrounding farmland. The Warden, Malcolm Wright, gave 13 BPS members and friends a comprehensive tour of the Fen, including a demonstration of an ingenious method of sluicing used to retain water in the dykes that criss-cross the reserve. I am indebted to Tim Pyner for the following report.

Chippenham Fen consists of 275 acres of wooded and open fen. About one third is woodland dominated by alder, ash and oak, with an understorey of privet, buckthorn, guelder rose and sallows. Birch and alder buckthorn occur in more acid areas. Common reed *(Phragmites australis)* and saw-sedge *(Cladium mariscus)* cover large areas of open fen, and areas of fen pasture are also present. Several rare and local species were seen including Cambridge milk-parsley *(Selinum carvifolia)* which is known from only two other sites in Britain. Unfortunately, pteridophytes were in short supply, only bracken *(Pteridium aquilinum)* and field horsetail *(Equisetum arvense)* being seen. Adder's tongue *(Ophioglossum vulgatum)* was searched for but not detected in an area where it is known to grow.

After a picnic lunch we made a brief stop at the railway bridge in the next village, Snailwell, where we found the brickwork mortar supporting a colony of *Asplenium ruta-muraria* and a solitary specimen of *A. scolopendrium*. We drove next to Lowlands Nursery, Waterbeach, which is owned by member Brian Cox. Here we toured a vast display of ferns and their cultivars grown in tunnels and a collection of unusual shrubs and trees, many grown from seed.

We rounded off our day by visiting Brian and Jennifer Cox's home where, after admiring many mature ferns and some splendid trees and shrubs in the garden, we were entertained to a generous spread of refreshments and invited to view the collection of rare and curious laundry memorabilia which have been assembled by Brian and Jennifer over many years.

Ranworth and Malthouse Broads and Fairhaven Gardens, Norfolk 17 August

Geoffrey Winder

Shirt-sleeves and sunhats were the order of the day when 19 of us, including some friends and family, met at Malthouse Staithe, which is on the edge of the Broads about nine miles north-east of Norwich. In the morning we were to visit the Norfolk Wildlife Trust's nature reserves (63/357149) at Malthouse and Ranworth Broads, and, in the afternoon, Fairhaven Gardens, a few miles away beside South Walsham Inner Broad.

For those unfamiliar with the region, the Broads are shallow lakes with their associated marshes, the results of ancient peat digging, interconnected by slow-flowing rivers and waterways.

With the warden, George Taylor, we were ferried across a short stretch of open water to an area of marsh inaccessible from dry land. The vegetation was fairly typical, with alder and willow carr, common reed and sedges. Flowering plants which attracted interest included water mint, yellow loosestrife, marsh pea and 'the best thing since sliced bread', a stingless nettle which, I understand, some botanists regard as being a separate species from the stinging nettle *(Urtica dioica)*. Milk-parsley, food plant of the

swallowtail butterfly caterpillar, was in flower, but there were no signs of the butterfly or its larvae.

In contrast to Chippenham Fen which we visited on 22nd June (see previous report), ferns were plentiful. In part of the marsh where reeds and taller vegetation were cut annually there were several acres where it was almost impossible to avoid treading on marsh fern *(Thelypteris palustris)*. The warden showed us slightly raised uncut areas on which grew marsh buckler fern *(Dryopteris cristata)*, narrow buckler fern *(Dryopteris carthusiana)* and lady fern *(Athyrium filix-femina)*. Bog myrtle also grew on this slightly raised ground and looked as if it could overrun the ferns if unchecked.

The launch then ferried us between the numerous holiday cruisers on Malthouse Broad to our second venue, the Broadland Conservation Centre overlooking Ranworth Broad Nature Reserve. Along the wooden walkway leading back through a wooded but generally marshy part of the reserve were *Dryopteris dilatata*, several royal fern *(Osmunda regalis)* and *Dryopteris filix-mas*, the latter on higher, dryer ground near the exit. Again, flowering specimens of milk-parsley were seen.

After a picnic lunch at the Fairhaven Garden Trust, we were joined by the warden, George Debbage, who accompanied us round the gardens. These are informal, with footpaths leading through woodland and down to South Walsham Inner Broad. Although freshwater, the broad rises and falls with the tides down-river. This causes water to flow to and fro along narrow channels which lead into the lower marshy parts of the gardens. Moisture-loving plants thrive close to these channels and there are good stands of skunk cabbage, candelabra primula, *Ligularia* and the ferns *Onoclea sensibilis*, *Matteuccia struthiopteris* and *Osmunda regalis*. In other, mainly dryer, parts of the garden were *Dryopteris filix-mas*, *D. dilatata* and *Athyrium filix-femina*. Despite the moisture in the environment some of the *Matteuccia* and *Athyrium* had scorched foliage, which we decided was caused by drying winds a few weeks earlier.

A most successful day, and it was particularly interesting to see so many ferns in wild or semi-wild conditions in a single day in East Anglia.

Warley Place, Essex – 17 September **Barrie Stevenson**

Ellen Willmott established the gardens of Warley Place, south of Brentwood (51/583907) in 1880 and for the next 50 years employed up to 100 gardeners to maintain her vast collection of rare plants. During her life-time more than 70 plants were named in her honour, but after her death in 1934 the house and greenhouses were demolished and the neglected garden became overgrown, soon to revert to woodland. However, 16 acres of the garden are now leased by the Essex Wildlife Trust and Tim Pyner led a group of ten members and friends around the Trust's Reserve to hunt for ferns, both species and cultivars.

We found the following pteridophytes: *Asplenium scolopendrium*, *Athyrium filix-femina*, *Dryopteris affinis*, *D. dilatata*, *D. filix-mas*, *Equisetum arvense*, *Osmunda regalis*, *Polystichum setiferum*, *Pteridium aquilinum* and *Selaginella kraussiana*. We were pleased to find, in addition, cristate forms of *Asplenium scolopendrium*, *Athyrium filix-femina*, *Dryopteris filix-mas* and *Polystichum setiferum*, presumably derived from introduced cultivars.

Much of the original planting was evident, including a group of enormous sweet chestnuts *(Castanea sativa)* which are between 300 and 350 years old and reputedly planted by John Evelyn, the diarist and author of the influential 'Sylva', a multi-trunked

Gingko biloba, vast specimens of the pungent laurel *(Umbellularia californica)* and a fine example of the very rare Chinese tree, *Meliosma veitchiorum.* We also found, in a sunlit glade, a purple carpet of *Colchicum* species in full bloom.

After a picnic lunch we drove to Westcliff-on-Sea to visit Tim Pyner's garden which contains an exceptionally varied collection of pteridophytes. He had produced a handlist giving details of the 97 different types on display, many of which are generally considered tender yet have survived a minimum temperature of –10°C with no protection. Tim enjoys living dangerously, horticulturally speaking, especially as he also grows many Australasian species, including a most imposing yellow-bloomed *Banksia marginata.*

We have to thank Tim for organising a most stimulating day and Tim's wife, Jill, for providing the splendid refreshments which brought our visit to a highly enjoyable conclusion.

End of Season Meeting, Suffolk – 26 October — Barrie Stevenson

Thirteen members and friends celebrated the end of British Summer Time by holding their autumn get together at the home of members Marie and Geoff Winder at Barrow, near Bury St Edmunds. During our tour of the garden we admired many interesting ferns growing below mature trees, including a superb group of *Polystichum setiferum* 'Divisilobum Densum' and an impressive mass planting of *Asplenium scolopendrium* 'Crispum Group' which have been propagated from leaf-bases.

We adjourned indoors to watch members' fern slides, including examples from Great Britain, Italy, Madeira and New Zealand. A table display of fern photographs, several pots of mystery sporelings for identification, herbarium sheets showing specimens of New Zealand ferns and an Indian fern album dating from 1884 provoked much discussion. Finally we enjoyed admirable refreshments organised by Marie Winder, thus concluding the 1997 season in grand style.

NORTH-WEST

Holker Hall 1997, the year of 'Fern Deco' – 30 May - 1 June — Sally Beamish

The BPS North-West Group was again successfully represented at the Holker Great Garden and Countryside Festival near Cark-in-Cartmel, gaining one of the top medal awards in the Societies' marquee.

'Fern Deco – the art of decorative ferns', focused on the influence of the fern in decorative art. Our stand was divided into two 'rooms', representing the home and the garden. The 'garden' displayed a fine collection of ferns contained in a rope-edged 'bed', demonstrating the diversity of colour and form that can be achieved with hardy ferns. Pictures and texts explained the history of the fern as a decorative garden plant, and a shady fern 'arbour', created by a display of potted ferns surmounted by a lofty *Dicksonia antarctica,* proved irresistible to the show-weary visitor. Here they could rest on a small fern bench, purchased by the Garstangs as a long-coveted addition to *their* garden, but coming to them via a small detour to the show. It arrived just in time!

Leaving the garden and entering the 'home' through the garden door, the visitor was introduced to the possibilities and potentials of ferns indoors, with examples of both historical and contemporary ideas for their use in display. A curtained window embrasure contained a selection of backlit ferns, providing a striking three-dimensional

living image on one wall. The other walls were hung with a selection of fine Victorian fern prints and with a fascinating range of illustrations depicting many of the forms of decorative art that have been inspired by the fern. Such diverse pieces as the fern-decorated 'pace' eggs painted by Wordsworth's hairdresser, Andy Goldsworthy's famous bracken 'sculpture', the fern-carved furniture that prevails in the beautiful old farmhouse of Townend, Troutbeck, near Ambleside and the crozier design of the traditional bishop's crook, were included in this display of Fern Deco.

The furnishings of the home were, naturally, ferny as well. A small side-table, decorated with pressed ferns, stood next to a statuesque armchair sporting an attractive modern-day fern-printed 'throw'. A display case of fern memorabilia and books graced another table covered by that most versatile of materials, the old, faded, moss-green chenille curtain, veteran of all our fern displays in Cumbria. A special award should be made to this piece of fabric on its retirement from the showbench!

Public reaction to our display was most encouraging, with many people lingering to look, read and chat, some for over half an hour! Bringing ferns to the attention of the general public is always a rewarding challenge and our 'Gold Award' this year was given to us by a passing visitor who stayed, and stayed, and stayed. He said "I could sit here and look at this for hours – it really is beautiful" – and he did! Thank you, sir.

Hay Bridge, Bouth, near Haverthwaite and Brantwood, Coniston, Cumbria – 21 June

Jack Garstang

Nineteen members assembled in the car park of Hay Bridge Nature Reserve (34/336876). This privately owned reserve is situated in a coastal valley with habitats of woodland, rough fell, pasture, ponds, fen land, river banks, raised bog and a tidal river subject to occasional flooding.

Dryopteris filix-mas, *D. affinis* subsp. *affinis*, *Athyrium filix-femina* and *Blechnum spicant* were found on the short walk down to a raised bog, stretching over 50 acres and surrounded by a lagg, a long, narrow wet area. On a natural raft of luxuriant sedges, birch, alder and blackthorn covering the lagg, were 26 large colonies of royal fern, *Osmunda regalis*, and the narrow buckler fern, *Dryopteris carthusiana*, was dotted about everywhere. Many of the royal fern colonies had 60-100 crowns, some standing almost two metres high. A walk through the woods of mainly birch, oak, alder and ash, now recovering from three centuries of coppicing and charcoal burning, showed *Dryopteris filix-mas*, *D. affinis* subsp. *affinis*, *D. dilatata*, *Blechnum spicant*, *Polypodium vulgare*, *P. interjectum*, large swathes of beech fern, *Phegopteris connectilis*, and one unusual *Dryopteris filix-mas* (Grandiceps group?).

Adjacent to the woods we examined an excavated potash pit, approximately twelve feet across by nine feet deep, where bracken *(Pteridium aquilinum)* was once burnt to obtain the potassium salts used in making soap for the woollen industry.

Lunch was taken in the fascinating Hay Bridge Museum before driving to Brantwood up the minor road known as Fern Alley on the east side of Coniston Water.

After an introduction by Sally Beamish on the continuing progress and developments at Brantwood we visited the Linton Room to view the 'Ferns in the Fells' exhibition, a beautiful and successful display of ferns, paintings, books, writings, memorabilia and fabrics. One American visitor writing in the visitor book wrote "this certainly cuts the mustard"; we took that as a compliment.

The Linton Fern Garden and woodland walks were magnificent, now containing over 250 species and varieties. *Dryopteris affinis* 'Pinderi', 'Crispa Gracilis' and 'Stablerae' – crisped form, and *Blechnum spicant* 'Serratum' and 'Cristatum' are just a few of the many cultivars now well established in this lakeside environment. Just above the track by the pond is a huge *D. affinis* which has always caused a heated discussion as to its correct name. Thanks to Ken Trewren we now know it is *Dryopteris* x *complexa* nothosubsp. *complexa* (the hybrid between *D. affinis* subsp. *affinis* and *D. filix-mas).* Within a few feet of it is a beautiful, pale green, late developing *D. affinis* morph. *paleaceolobata.* The afternoon finished with a visit to the nursery by the lake shore where the most interesting ferns were sporelings of *Athyrium filix-femina* 'Plumosum Penny' and 'Plumosum Druery', and a *D. affinis* with inrolled pinnae that was found in the Zig Zaggy garden. *Dryopteris* x *uliginosa* and *D. corleyi* were both flourishing.

Silecroft and West Coast, Cumbria – 19 July — Edna Marper & Mike Porter

On a perfect summer's day eighteen members of the North-West Group met on the shore west of Silecroft (44/121810) to investigate, under the joint leadership of Edna Marper and Mike Porter, a range of sites both inland and coastal. The group having assembled, Edna led the way south along the shore to a superb colony of *Ophioglossum vulgatum,* passing on the way numerous bushes of dyer's greenweed *(Genista tinctoria).* The adder's tongue plants here grow in a dense patch with several hundred fertile spikes and are situated on a sandy bank some way above the high water mark. Having admired and photographed the colony, the party made its way back to the cars noting good numbers of butterflies on the way; dark green fritillaries and meadow browns were especially common.

At this point the group split up, Edna's party exploring the churchyard at St Mary's Whicham and the lanes round about, while Mike's group went on to the lower slopes of Black Combe, a massive hill which dominates this part of the coast.

The first party reported *Asplenium scolopendrium* and *Equisetum arvense* (sometimes locally known as 'holy water sprinkle') in the churchyard, and *Polypodium interjectum, Athyrium filix-femina, Dryopteris filix-mas, D. dilatata* and *Pteridium aquilinum* on the turf and stone banks of the lane.

The second party, after a stiff climb up from the car park, enlivened by the sight of peregrine falcons 'dive-bombing' a buzzard, reached the south-facing slate crags which house a scattered colony of *Asplenium obovatum* subsp. *lanceolatum.* The plants were rather small and seemed to be suffering a little from lack of moisture, but were readily distinguishable with their shiny, lanceolate fronds closely pressed to the surface of the rock. The two parties having met up for lunch in the welcome shade of Whicham churchyard wall, the group moved north to the other Cumbrian site for *A. obovatum* subsp. *lanceolatum.* Here the plant grows in a roadside wall and is almost totally concealed by the vigorous growth of other plants, notably *Dryopteris filix-mas* and foxglove *(Digitalis purpurea).*

The final site of the day was the road end at Drigg (34/048985) where two medium-sized plants of *Osmunda regalis* grow in a damp roadside ditch.

Arnside, Cumbria and Silverdale, Lancashire – 16 August — Peter Hindle

We spent the morning in Arnside at the home of John Mashiter, who over many years has developed and expanded the collection started by his grandfather. Many of the ferns there have been in cultivation for over 100 years. Part of the garden comprises a

low limestone cliff and as we were in the middle of a warm, dry spell, many plants were not at their best. Outstanding though were *Thelypteris palustris* flourishing in some very dry spots, *Onoclea sensibilis* and several variants of *Polystichum lonchitis*.

Our host then led us through Grubbins Wood Local Nature Reserve, where despite being on limestone, soil pH values of 4.9, 5.8 and 6.8 have been recorded. Here we found several specimens of *Polystichum setiferum* 'Divisilobum' and isolated plants of *Gymnocarpium dryopteris*.

After lunch we moved to Kaye's Waithman Nurseries at Silverdale and were impressed by the developments since our previous visit in 1994. Much has been done to increase the area of fern planting and we were able to inspect some of the newly planted beds. Mrs Kaye, our guide for the day, stressed the importance of thorough ground preparation before planting. Of particular interest were plants of *Dryopteris wallichiana* (brown-scaled form) and red-stemmed *Osmunda japonica*. Another noteworthy plant was a crested form of *Pteridium aquilinum*, originally found wild in the Silverdale area by Reginald Kaye.

Our sincere thanks to both owners for allowing us these visits and spending time showing us around and answering our many questions.

Cumwhitton Moss and Eden Valley, East Cumbria – 13 September

Mike Porter

Scattered over the North Cumbrian Plain are a number of 'mosses', areas of damp peat, often well wooded with birch and Scots pine and supporting a wide range of flora and fauna. Cumwhitton Moss, situated close to the village of Cumwhitton (confusingly similar in name to nearby Cumwhinton which is to be found on the other side of the River Eden!) is one of the most interesting of these mosses and was the site for the North-West Group's last field meeting of the season. Eleven members eventually arrived (some via Cumwhinton) on a rather threatening morning with heavy clouds building up and rain in the air. However, a strong wind got up, dispersed the clouds and enabled the group to enjoy a splendid autumn day with only one brief shower.

The moss was entered from its western side and a compass course was steered through dense pines and rather dangerous concealed peat diggings to a point just south of the Cumwhitton Beck. On the way the group noted many specimens of *Dryopteris dilatata* and *D. carthusiana* with a number of likely plants of the hybrid *D.* x *deweveri*. A little further on, the prime object of the visit was located – a healthy and extensive colony of *Thelypteris palustris* in perfect condition. Careful examination revealed that although the vast majority of the fronds were sterile there were also a small number of fertile fronds, distinguishable by their larger size, narrower pinnae and rather 'crinkly' appearance. In general the sori were not well developed. This colony, one of only three in Cumbria, contains well over 1,000 fronds. In the near vicinity were various other objects of interest, notably hoof fungus which is not infrequent in this part of the Eden Valley and the small evergreen orchid, creeping lady's-tresses *(Goodyera repens)*.

The group now left the moss and moved on to a site near the Eden at Wetheral for lunch, followed by a leisurely stroll along the bank of the river to a series of caves which were, reputedly, the cell of St Constantine. In this area of the Eden Valley by far the most frequent polypody is *Polypodium interjectum* and this was observed growing in profusion on walls, trees and banks.

The meeting finished in bright sunshine shortly after 3.00 p.m.

AGM, Holehird, Windermere, Cumbria – 11 October

Jack Garstang

Thirty-five members assembled for our fourth AGM. The meeting reports and members' photographs on display reflected another very good season of varied and well-attended meets. The formal business being quickly completed, a healthy discussion soon led to the development of several interesting ideas for our 1998 programme.

Prof. Alastair Wardlaw gave an excellent illustrated talk entitled 'Experiences with tree-ferns'. This covered his own experience of growing tree-ferns and his practical experiments with methods of winter protection for them. The winner of the amusing anagram and limerick competition was once again Mike Porter; the other competition winners were: 'Indoor Fern' – Jack Bouckley, 'Hardy Fern' – Les Dugdale. After an enjoyable tea provided by members the meeting closed at 5 p.m.

CORNWALL

Rose Murphy

The Lizard, West Cornwall – 16 April

Eight of the group met at my home in Reskadinnick to start the second year of our recording. After tea or coffee and a look at some of the new ferns in the garden, we drove down towards The Lizard, meeting up with Chris Page on the way. Our first stop was at Lizard Wood (10/791226), a mixed broad-leaved wood with some hazel coppice. In this year's cold, dry spring, ferns were not as well-advanced as they had been last year and all that could be noted were *Athyrium filix-femina, Blechnum spicant, Dryopteris affinis* agg., *D. dilatata, D. filix-mas, Polypodium interjectum, P. vulgare, Polystichum setiferum* and *Pteridium aquilinum*. We soon moved on to a small roadside wood near Little Trevean (10/767199). Again we were able to see the effects of the dry spring, many of the ferns still being in the crozier state. For new members of the group this was an advantage as it was possible to see the distinctive unfurling pattern of *Polystichum setiferum* contrasting with that of *Dryopteris dilatata*. It was also interesting to see the winter-surviving fronds of *D. affinis* subsp. *affinis* (still with their intact indusia) surrounding the newly uncurling fronds. The lunch stop was made at the northernmost tip of Crousa Downs and here, in the ditches and on their banks, were *Equisetum arvense* (10/762197) and *E. telmateia* (10/759190), the latter now spreading its range from the original site in the nearby Rosenithon valley.

In 1992, *Equisetum telmateia* was abundant in the Rosenithon valley (10/7920 and 10/8020), but development has taken place and the great horsetail is not as easy to find. However, two plants were seen on top of the roadside hedge (10/799212), each with whorled branches, yet with cones. Chris Page was very intrigued with these and photos were taken. The narrow lane towards Rosenithon village (10/797212 to 10/801212) was very sheltered and sunny and though species were few, the ferns themselves were abundant, especially *Asplenium adiantum-nigrum* and *A. scolopendrium*. While trying to find more *E. telmateia*, two of us searched the valley on the south side of the road and found unusual *Dryopteris filix-mas* with tawny, foxy-red scales in abundance (10/199212). Two more plants of the same kind were found at Porthoustock, our last stop for the day. Here, on the south side of the beach, the cliff face was partly hard rock (gabbro) and partly slumped clay (10/807217). Tony Atkinson and Chris Page were in their element here, searching everywhere for *Asplenium obovatum* subsp. *lanceolatum* though without success, but adding *A. marinum* to the list. Some of us then searched the inland valley, while others continued the search for lanceolate spleenwort. It was eventually located on coastal cliffs on the far side of a disused quarry just to the north

of Porthoustock at 10/809220. A new record for a ten kilometre square (10/82) and a good ending to a brilliant day.

Penjerrick, West Cornwall (10/780309) – 14 June

This was in part a garden meeting and seven of us met at Penjerrick and were introduced to Mrs Rachel Morin, the present owner. Penjerrick is one of three gardens established in this area during the last century by the Fox family and it is the one that is still in their ownership. Set in a sheltered, south-east facing valley, with many springs that create a more or less permanent stream even in a drought, it is one of the mildest gardens in Britain and boasts a rich collection of ferns, both native and introduced. In the top garden *Athyrium filix-femina*, *Dryopteris affinis*, mainly subsp. *affinis*, *D. dilatata*, *D. filix-mas*, *Asplenium scolopendrium* and *Polystichum setiferum* were abundant. The first introduced fern noted was *Pteris cretica*, growing at the foot of the garden terrace. Within the shelter of nearby woodland were *Dryopteris crispifolia*, *Polystichum polyblepharum*, *Todea barbara* and *Woodwardia radicans*. The grotto at the end of the terrace was home to *Cystopteris fragilis* and *Selaginella kraussiana* (now I know the origin of these two species which grow in the lane between the two halves of the garden!). Fine *Dicksonia antarctica* were frequent, some of the tallest occurring in the Lower Garden where they reach heights of 25 feet or so. Down in the moist Lower Garden with its streams and ponds, many young tree-ferns were naturalised and *Athyrium filix-femina* was head-high. *Blechnum magellanicum* was everywhere and *Onoclea sensibilis* flourished by the lakes. Lunch was had in a sunny, sheltered place in the top garden, then, after extending our thanks to Mrs Morin who had opened the garden especially for us, we began a fern search in the surrounding lanes.

The lane between the two gardens is very damp and sheltered, especially at 10/779307. *Cystopteris fragilis*, young *Dicksonia antarctica* and *Selaginella kraussiana* were naturalised here, growing with a number of native ferns. Towards its northern end, a steep rocky bank supported *Dryopteris aemula* (10/781308), growing with *Blechnum spicant*. The ferns growing along the lane that borders the northern side of the gardens (10/780309) were more varied though less abundant and we were able to see both of the types of scaly male fern that are common in Cornwall, *Dryopteris affinis* subsp. *affinis* and subsp. *borreri*. As we walked back towards the cars we noticed a shining, rather young *Polystichum* and wondered if it could be yet another escape from Penjerrick, this time *Polystichum polyblepharum*. At the end of a most enjoyable day we thanked Chris Page who had organised it all for us and who so ably led the meeting.

Carwinion, near Mawnan Smith, West Cornwall (10/781282) – 12 July

The weather forecast for the weekend was not good, but it proved cool and blessedly dry when ten of us were made welcome at Carwinion by Mrs Jane Rogers, the owner of the gardens. Over coffee we learnt of the collection of bamboos and of the plans she and her husband were making to add to the ferns they already grew. Making for the woodland areas, we followed a path that led past various pools towards a quarry and then down to the beach by the Helford River. This garden, though sheltered, can still be affected by frost and this meant that one of the *Woodwardia* species had been lost in the very cold spell of early spring this year. Ferns grew in profusion in the wooded areas, along hedgebanks, by the pools and in the quarry where most of the introduced ferns could be found. *Polystichum setiferum* and *Athyrium filix-femina* were everywhere, with *Dryopteris dilatata* and *Asplenium scolopendrium* on the hedgebanks. *Osmunda regalis* and *Onoclea sensibilis* grew by the ponds and streams.

Dryopteris filix-mas was, strangely, not all that common in what the owners describe as a 'wild valley-garden', but *D. affinis* flourished, several plants proving to be subsp. *affinis* (10/780281). Only one plant of *D. affinis* subsp. *borreri* was seen, and this was outside the garden by the path that led to the beach (10/780271). Only one kind of horsetail was seen and quite as expected this proved to be *Equisetum arvense*. *Polypodium interjectum* was not common and *Pteridium aquilinum* was rare(!), but a careful search revealed *Dryopteris aemula* growing on rocky banks by the stream at 10/780274. Within the quarry (10/781279) were such introduced species as *Athyrium niponicum* 'Pictum', *Dryopteris erythrosora, D. wallichiana, Polystichum polyblepharum, Todea barbara, Woodwardia fimbriata,* which survived this year's frost, and *W. radicans*. They grew with such garden-worthy varieties of native species as *Athyrium filix-femina* 'Fieldiae' and 'Frizelliae', *Asplenium scolopendrium* 'Crispum' and a magnificent *Dryopteris affinis* 'Cristata The King'. *Dicksonia antarctica* was almost naturalised – several huge tree-ferns, smaller ones just beginning to develop trunks, and young sporelings in dozens along the more shaded banks above the stream.

Lunch on the beach was followed by a gentle walk back towards the house exploring new areas. This allowed us to add *Selaginella kraussiana* to the list. A cream tea brought us to the end of the day. Our grateful thanks were extended to Mrs Rogers who gave us a warm invitation to visit the gardens again and see more of the ferns she plans to introduce. The fern collection at Carwinion is only just beginning; it will be fascinating to watch it grow!

Equisetum Workshop – 13 August

Cornwall Wildlife Trust kindly made a room available to us for this workshop. Chris Page discussed the evolution of this ancient group, their present distribution and their habitat preferences. To learn that we have more hybrids in Britain and Ireland than anywhere else in the world, that *Equisetum telmateia* can send its rhizomes down to a depth of 40 feet and that horsetails require conditions where both calcium and silica are available all added to the fascination of this group. Fourteen people were present, three being Conservation Officers from the Cornwall Wildlife Trust. Barbara Porter made the journey to Cornwall especially; she had brought slides with her and these, together with those from David Holyoak, allowed us to consider those hybrids that don't grow in Cornwall. With local material, especially huge *E. telmateia* from Goss Moor (10/939596) (presumably calcium and silica were present!), we were able to discuss identification, learn that we have only one form of *E. variegatum* in Cornwall (the prostrate dune form), see unusual growth forms of *E. palustre* and discuss the detailed structure of *E. arvense*. Unlimited tea and coffee were made available to us by the Trust and we ate our picnic lunch in warm sunshine in their garden. Our grateful thanks go to the Trust for making this day possible.

Temple, Bodmin Moor, East Cornwall (20/136729) – 4 & 20 August

A small group, that included Trevor and Julie Taylor from Derbyshire, visited this very special site on Bodmin Moor. We had made a special detour to Dozmary Pool (20/192745) to see *Isoetes echinospora,* which was particularly abundant this year and sporing well. This was followed by a visit to Temple to see a *Dryopteris* that looked unusual. Anthony Pigott determined it as *D. affinis* morphotype *paleaceolobata,* the first time it had been seen in Cornwall.

A re-visit was made later in the month, this time with Mary and Tony Atkinson, who hope to find more sites for this fern. It made a rather good end to our year.

HORTICULTURAL SHOWS

MALVERN SPRING SHOW – 9-11 May

A.R. Busby

Due to the early date of this show we once again had to rely mainly on indoor ferns, although Ray Smith was able to provide a few hardy ferns in pots and Clive Brotherton again supplied several of his superb *Cheilanthes* in pots.

There was an air of sensuality at this year's Society stand. Staging ferns in terracotta-coloured pots tends to clash with the black show cloths thereby giving a rather artificial look to the stand, and the bright colour of the pots draws the eye from the more neutral green of the ferns. To offset this we used an idea from other society stands – using ladies' black tights to cover the pots. Of course, much male discomfort could be avoided by using only black pots! This is something I must consider for future events.

The following ferns were shown in the competitive classes. Once again, it was disappointing to see so few ferns exhibited.

Class 4G One Pan Hardy Fern: 1st Mr C.A. Loader *(Athyrium niponicum)*, 2nd Mrs N. Thomas *(Adiantum pedatum* 'Imbricatum'), 3rd Dr A.J. Hughes (*Polystichum setiferum* 'Dahlem') (6 entries)

Class 29G One Pot Fern: 1st Mr B. Walker *(Cystopteris dickieana)*, 2nd Mr D.L. Richards *(Cheilanthes eatonii)*, 3rd Mr G. Lewis *(Asplenium fontanum)* (6 entries)

My 'award' for best in show must go to the excellent *Asplenium fontanum* exhibited by Mr Lewis which was just about the best example of this species I have ever seen exhibited. If only I could do half as well.

The stand prompted the usual amount of interest from the gardening public and it was very gratifying to enrol four new members. My thanks to Ray and Brenda Smith and John and Margaret Collins for helping me set up the stand and to Sue Pierce, Alan Ogden and Clive and Doreen Brotherton for assisting during the show.

BBC GARDENERS' WORLD LIVE! – 11-15 June

A.R. Busby

As a new venture this year, I set up a display of ferns in pots at the BBC *Gardeners' World Live!* at the National Exhibition Centre, Birmingham. This five day show has become one of the nation's major horticultural events and I felt it only fitting that our Society should be represented. It was also very gratifying to be able to set up the stand using predominantly British hardy ferns from my garden, augmented by five extra plants kindly loaned by Rickards Hardy Ferns.

Local members manning the stand on the days that I could not be there reported much interest from the gardening public and five new members were enrolled. An interesting comparison can be made with the neighbouring stand, a very attractive display by the Cottage Garden Society. They enrolled thirty new members on the first day and told me that they enrolled some two hundred new members at last year's show. For me this confirms what I have always maintained – that we are a very specialist Society and unlikely ever to enjoy such popularity.

As always, I am indebted to our local members who are such stalwarts and without whose support I would be unable to contemplate such ventures, namely J. & M. Collins, R. & B. Smith, A.H. Ogden, S. Pierce and C. & D. Brotherton.
I hope to represent the Society again at next year's show and offers of help will be gratefully received.

SOUTHPORT FLOWER SHOW – 21-23 August

A.R. Busby

It was very disappointing to see so few entries in the fern classes this year, largely due to the absence of Ray Smith's entries. Ray has been such a stalwart supporter of the fern classes for many years and was sorely missed. New blood is needed very badly but I am at a loss to know how to encourage more members to take part.

The championship class helps to fill the bench and this year's winner, Mrs Anne Beenham, exhibited some well grown specimens: *Asplenium scolopendrium* 'Crispum', *Athyrium filix-femina* 'Rosemary', *Polypodium vulgare* 'Cornubiense', *Dryopteris affinis* 'Crispa Congesta', *Onoclea sensibilis, Cheilanthes eatonii, Adiantum raddianum* and *Cyrtomium falcatum*, all in seven or eight inch pots. The quality of the exhibits was good, by and large, and presentation continues to improve. Sad to report one disqualification due to a *Dryopteris erythrosora* 'Prolifica' being entered in the *Polystichum* class and a *Polystichum* species rather than variety being included.

This year's judge was A.R. Busby. The prize winners are listed below.

Class 6 Individual Championship: Four hardy, two greenhouse, two foreign hardy ferns: 1st Mrs A.G. Beenham (1 entry)

Class 7 Three Hardy British Ferns (dissimiliar): 1st Mrs H.C. Shepherd (1 entry)

Class 8 Three Hardy Foreign Ferns: (no entries)

Class 9 Three *Polypodium* (distinct varieties): 2nd Mr & Mrs B. Russ, 3rd Mrs E.A. Gibbs (2 entries)

Class 10 Three *Polystichum* (distinct varieties): (1 entry, disqualified)

Class 11 Three *Athyrium*: (no entries)

Class 12 Three *Asplenium* (excluding *A. scolopendrium*): 1st Mr & Mrs B. Russ, 2nd Mrs E.A. Gibbs (2 entries)

Class 13 One British Fern (any kind or variety): 1st Mrs E.A. Gibbs, 2nd Mr A. Lovell (2 entries)

Class 14 One Greenhouse Fern: 1st D. Need, 2nd Mrs E.A. Gibbs, 3rd Mr & Mrs T. Melling (4 entries)

Class 15 Three *Asplenium scolopendrium* (3 distinct varieties): 2nd Mr & Mrs B. Russ (1 entry)

My sincere thanks to Ray and Brenda Smith, David Harrison and Lawrence Kirkham for their invaluable assistance on the Society's stand.
Offers of assistance at Southport Show will be gratefully received.

THE AMERICAN FERN SOCIETY

The AFS invites all readers of this *Bulletin* to join the American Fern Society. Regular members receive the *Fiddlehead Forum* six times a year. This newsletter is published for the benefit of those who are interested in growing ferns, hunting for them, and expanding their knowledge of ferns. Journal members also receive the scientific quarterly *American Fern Journal*. Membership costs $11 and $22 per annum respectively for members residing outside USA, Canada or Mexico, including postage for airmail-assisted delivery. For particulars please write to Dr David B. Lellinger, 326 West St. NW, Vienna, VA 22180-4151, USA. Prospective members residing in Great Britain should write to Mr M.S. Porter, 5 West Avenue, Wigton, Cumbria CA7 9LG.

AFS SUBSCRIPTION PAYMENTS: Our societies have an exchange arrangement whereby members of the BPS can pay their AFS subscription through the BPS Membership Secretary and *vice versa*. Contact your Membership Secretary for details.

SECRETARIAL NOTES

ANNUAL GENERAL MEETING 1998, PRELIMINARY NOTICE – The 95th AGM will take place on Saturday 12th September 1998 at the Waterhead Hotel, Coniston, Cumbria at 2.00 p.m.

COMMITTEE VACANCIES – In accordance with paragraph 3, section 3 of the Society's Constitution, two vacancies will occur due to the retirement of the two longest serving Committee members. Nominations are invited from Society members to fill these vacancies at the Annual General Meeting in 1998. The names of the nominees, proposers and seconders, together with a letter from the nominee indicating his/her willingness to serve, should reach the General Secretary by 1 August 1998.

SUBSCRIPTIONS 1998 – Members are reminded that subscriptions for 1998 are due on the 1st January 1998 and should be paid to the Membership Secretary*, Mr M.S. Porter, 5 West Avenue, Wigton, Cumbria CA7 9LG. Cheques should be made payable to 'The British Pteridological Society'. Current rates are given inside the front cover. **Standing Order** forms are available from the above address. Payment can be made by **Credit Card** – see renewal form.

Please note change of Membership Secretary.

PUBLICATIONS BY AIRMAIL – Our journals can be sent by airmail to overseas members, provided they advise the Membership Secretary and pay an additional subscription to cover airmail postage. See inside front cover for rates.

ROYAL HORTICULTURAL SOCIETY – Our Society is affiliated to the RHS, enabling a limited number of members to enjoy certain privileges in connection with RHS Shows, competitions and services.

The BPS has bought a Garden Entry Card from the RHS. This allows one BPS member and a guest to visit Wisley for £3.50 (normally £5), Rosemoor £2.80 (normally £4) and Hyde Hall £2.10 (normally £3). The card is valid for a year from September 1997 and is not valid for Wisley on a Sunday. If anybody would like to borrow this card, they should to write to A. Leonard, 11 Victory Road, Portsmouth, PO1 3DR, enclosing an SAE. The card should be returned to the Treasurer within 30 days.

READING CIRCLES – The Society operates a reading circle for several journals. The *American Fern Journal* is a quarterly publication containing much information for those seriously interested in ferns; it is accompanied by the *Fiddlehead Forum*, which publishes many 'ferny' items of interest to the amateur grower. The Royal Horticultural Society's journal, *The Garden*, is published monthly. To receive any of these journals apply to the General Secretary.

SPECIAL INTEREST GROUPS – There are four Special Interest Groups. For further information please send a stamped addressed envelope to the organisers:
Aquatic Pteridophyta: Miss J.M. Ide, 42 Crown Woods Way, Eltham, London SE9 2NN.
Tree-ferns: Prof. A.C. Wardlaw, 92 Drymen Road, Bearsden, Glasgow G61 2SY.
Foreign Hardy Ferns: A.R. (Matt) Busby, 16 Kirby Corner Road, Canley, Coventry CV4 8GD.
Filmy Ferns: S.J. Munyard, 234 Harold Road, Hastings, East Sussex TN35 5NG.

MEMBERS INFORMATION SERVICE – Members often require information and advice on many aspects of pteridophytes but are reluctant to ask or simply do not know where to obtain help. Queries from members on any aspects of the biology, identification or cultivation of ferns or fern allies should be sent to the General Secretary accompanied by three first class stamps.

GREENFIELD FUND – This fund, set up as a memorial to one of our Society's great fern growers, Percy Greenfield, is used to finance approved research projects, helping with the cost of necessary equipment, books and travel expenses. Percy Greenfield's interest leaned very much towards the non-scientific side of our activities and it is felt that he would want this taken into consideration when decisions are made. Workers eligible for university or college grants and similar support are not therefore eligible for help from the fund. Members wishing to benefit from this memorial fund should apply to the trustees via the General Secretary.

CENTENARY FUND – This fund is used to promote the study of all aspects of pteridophytes – horticultural, scientific and educational, whether by amateurs, students or professional pteridologists. As such its scope is much broader and more flexible than the Greenfield Fund. Anyone wishing to avail themselves of this fund should contact the trustees via the General Secretary.

BACK NUMBERS OF JOURNALS – Why not be ready for the new season's ferning by doing a little reading. Our back numbers are a valuable source of information pertaining to most aspects of ferns. A mixed pack of six of our journals is available for just £5 post free to whet your appetite; other back numbers of the Society's journals are available to members at reasonable prices. A full list is available from Pat Acock, 13 Star Lane, St Mary Cray, Kent BR5 3LJ.

BPS VIDEO 'BRITISH FERNS' – With over fifty species of ferns the British Isles has a remarkably varied fern flora. Many species have distinctive distributions reflecting regional variations in environmental conditions. In particular the cool, relatively damp environments of the North and the mild Western fringes of Britain bring together species typical of Atlantic, Arctic and Alpine regions, resulting in a fern flora that is unique to the British Isles.

This twenty-five minute video shows most of our native ferns growing in their natural habitats. It demonstrates the wide variety of size and form to be found in British ferns and the broad range of habitats they colonise. Attention is drawn to key identification characters for each species.

The video was funded by Schering Agriculture and the National Museum of Wales. It is available for loan, free of charge, to interested individuals and organisations (UK only). For further details write to the General Secretary enclosing an SAE.

NEW SPORE EXCHANGE ORGANISERS – Please note that Barry and Anne Wright are taking over this role from Margaret Nimmo-Smith.

WANTED: ARCHIVIST – The Society requires an archivist to actively maintain and enhance its collection of various archive materials, mainly photos, letters and a few sundry items. Further information from the General Secretary.

WANTED: AUDITOR – Do you have accounting or auditing experience? One of the Society's auditors wishes to stand down at the next AGM so a volunteer is needed to join Graham Ackers. Further information from Graham Ackers, Deersbrook, Horsham Road, Walliswood, Surrey RH5 5RL, tel./fax 01306 627330.

WORLD-WIDE WEB SITE – The URL (address) of the BPS Web site hosted by the Natural History Museum has changed to "http://www.nhm.ac.uk/hosted_sites/bps/". The content should be expanded and updated very shortly.

ANNUAL GENERAL MEETING 1997

MINUTES of the 94th Annual General Meeting held in the Jodrell Laboratory, The Royal Botanic Gardens, Kew, Richmond, Surrey on Saturday 18th October 1997 at 2.15 p.m.

IN THE CHAIR: The President, Dr T.G.Walker.

PRESENT: P.J. Acock, E.J. Baker, E. Bucke, A.R. Busby, J.M. Camus, R.J. Cooke, M. & L. Craddock, T. Craddock, H.L. Davies, A. Dickman, P.J. Edwards, J. Faulkner, M. & J. Garstang, M. Gibby, D.C. Guest, N.J. Hards, R.J. Hayward, E. Hennipman, R. Hibbs, A.E. Hoare, R.G. Hoare, D. & K. Holly, J.M. Ide, A.C. Jermy, L. Kirkham, A.M. Leonard, P.A. Lynch, E.O. Mason, S.J. & K. Munyard, R.J. Murphy, J. Parker, A.M. Paul, A.C. Pigott, B. Porter, P. Richardson, M.H. Rickard, N.A. Riddell, P.H. Ripley, A.D. Sclater, R.N. Timm, J.C. Vogel, O. Walker, A.C. Wardlaw, J.R. Woodhams.

ITEM 1 – APOLOGIES FOR ABSENCE: J.A. Crabbe, J.K. Cramp, R.J. & B. Smith, C.N. Page, J.W. Merryweather,

ITEM 2 – APPROVAL OF MINUTES: Minutes of the 93rd AGM held on the 12th October 1996 had been published in the 1996 *Bulletin* and were approved.

ITEM 3 – MATTERS ARISING: None.

ITEM 4 – REPORT OF THE HONORARY GENERAL SECRETARY:

MEETINGS: Regrettably, yet another year has passed in which I have been unable to attend field meetings but I have heard good reports, especially of the meeting in Derbyshire. I take this opportunity to thank all those members who take the trouble to lead meetings.

REGIONAL GROUPS: Apart from my own Midlands Group which only managed one meeting this year and one at that for which I can take no credit, and the Wessex Group which is not well supported, the other regional groups appear to be flourishing. I urge all members who are fortunate enough to live in an area that boasts such a group to contact the organiser and take part in its activities.

MEMBERSHIP: Our Membership Secretary, Alison Paul, informs me that we have had 27 resignations this year and 55 members have lapsed to date, but we have been fortunate enough to enrol 58 new members during the year. Our membership total stands at 742.

PLANT AND SPORE EXCHANGE SCHEMES: Ray and Brenda Smith continue their good work organising the Plant Exchange Scheme. As I prepare this report they have just completed the latest list of the plants that members are offering. Brenda has very recently undergone major surgery and we wish her a speedy recovery.

Margaret Nimmo-Smith reports great difficulty in keeping up with the demands of the Spore Exchange Scheme. She extends her sincere apologies for the long delay in fulfilling members' spore requests but continues in her endeavours to clear the backlog.

MERCHANDISE: Mick and Linda Craddock continue to organise the Society's merchandising and report another busy year.

BOOKSALES: Steve Munyard sent me a long report during June of this year outlining several problems mainly to do with insuring the Society's book stock at his home. This

is being considered by the Committee. He also reports a general increase in the cost of buying books from bookshops which prevents him from making any good level of profit from sales. This service is run with low margins and it was never envisaged that it would make big profits.

SPECIAL INTEREST GROUPS: These groups continue to operate at various levels and their activities will be reported in the 1997 *Bulletin*. [see p. 88]

COMMITTEE BUSINESS: We have formed a Finance and General Purposes Sub-Committee consisting of three officers and two Committee members. The aim is to try to 'pre-digest' some of the Society's business and be able to make recommendations to the Committee. Hopefully, the Committee will be able to merely rubber stamp some items but will always be able to reject those that it considers inappropriate. This sub-committee has met twice during 1997; time will tell whether or not it will be effective.

Items at present under consideration include seeking charitable status for the Society, and organising a symposium on fern growing to be held in 2001. The Committee has also been considering various ways of commemorating the many years of hard work that Jimmy Dyce gave to this Society and we shall keep members informed on these as they bear fruit. I am pleased to announce that one item that will bear Jimmy's name has been given to the Society today. Thanks to the extreme generosity of James Crabbe, the Society now has a silver cup, the James Dyce Trophy. This will be awarded to exhibitors of ferns in a Society show; further details will be announced at a later date.

There are changes afoot during the coming year. Alison Paul will be retiring as our Membership Secretary. We are most grateful to Mike Porter who has offered to take over this role from 1998 in response to Alison's plea for a volunteer to succeed her. Reluctantly, I shall be retiring as General Secretary at the AGM in September 1998.

Once again I must end on a sad note by reporting the deaths of Dr H.E. Bellringer, a member since 1969 and Mrs D. Ellenberg, a member since 1979, and we were shocked to learn of Mrs Alma Jermy's death in June. To their families we extend our deepest sympathy. As most members will know, James Wood Dyce MBE, our President Emeritus, died on 29th December 1996. It has been said that without Jimmy Dyce our present Society would not exist. I am not sure about that but I am sure that without Jimmy we would not have the kind of Society we have enjoyed for the last fifty years. If I may be allowed to paraphrase Sir Christopher Wren's memorial in St Paul's Cathedral – 'if you seek Jimmy's memorial, you are a member of it'.

The President thanked Mr Busby for his report.

ITEM 5 – REPORT OF THE HONORARY TREASURER: Andrew Leonard circulated to the meeting a copy of the balance sheet for 1996. This was duly approved and the President thanked Mr Leonard.

ITEM 6 – REPORT OF THE MEETINGS SECRETARY: Patrick Acock, acting Meetings Secretary, circulated a list of meetings proposed for 1998. There will be an indoor meeting in London on 7 March, a field meeting in Hastings 23-25 May, a field meeting in the Brecon Beacons in July and the Midlands Fern Show at Warwick University on the 18 July. The Society will have its usual stand at Southport Flower Show on the 20-22 August, a field meeting in the Lake District on the 10-13 September and there is a proposed winter mini-symposium in London on the 16 January 1999.
The President thanked Mr Acock and the Meetings Sub-committee for all their hard work in seeing the 1997 programme through and in getting the 1998 programme ready for today's meeting.

ITEM 7 – REPORTS OF THE EDITORS:

Fern Gazette – Mr Busby read the report received from B.A. Thomas in which he apologised for the delay in the publication of the *Fern Gazette*. This was due to circumstances beyond his control, in large part the lack of completed copy. The present issue is with the publisher and will be sent out shortly. For the next part, two papers are ready for the printer and two are in the pipeline.

Pteridologist – Mr Busby read a report received from the retiring editor, James Merryweather. He is handing over the editorship with mixed feelings. Having always enjoyed reading *Pteridologist* from cover to cover, he had very much enjoyed having the opportunity to test his own style on the journal. However, due to a combination of various pressures and the need for freedom to indulge fully in his other interests he felt it was time to retire from the post. Much more copy is needed for the 1998 edition which will be a memorial to Jimmy Dyce. Members were urged not to procrastinate, but to put pen to paper and ensure that the new editor has enough material.

Bulletin – Alison Paul reported that some of the copy was to hand for the 1997 issue but that she is still waiting for many reports. Alison also asked members to submit for consideration for publication any photographs they had taken at this year's meetings.

World-Wide Web Pages – A.C. Pigott who has been the driving force to get the Society onto the WWW reported that The Natural History Museum has provided space on its WWW server to enable the Society to display a few pages giving information on membership, the Society's activities and pteridophytes generally. Our site is very basic at the moment but Anthony hopes soon to update and expand the information available.

The President thanked the Editors for their reports.

ITEM 8 – REPORT OF THE CONSERVATION OFFICER: Rob Cooke was pleased to report that the Society has donated £250 towards the purchase of Eridge Rocks Nature Reserve by the Sussex Wildlife Trust, a site containing *Hymenophyllum tunbrigense* and we have received a letter of thanks acknowledging the donation. [For more information see p. 90.] Rob will ensure that our Society endeavours to work closely with various conservation bodies. We have recently been working with other organisations to produce an updated Code of Conduct for the Conservation of Wild Plants. We hope to distribute this with one of the journals next year.

ITEM 9 – REPORT ON BPS MAPPING PROJECT: Anthony Pigott gave a presentation on the objectives of this scheme and outlined ways in which members could contribute. [For more information see Anthony's report on p. 89.]

ITEM 10 – ELECTION OF OFFICERS AND COMMITTEE:

Election of President: Having completed his three years as President of the Society, Dr Trevor Walker was retiring from this post. Dr Walker stated how pleased he was to recommend, on behalf of the Committee, Mr Martin H. Rickard as the next President of the Society. Martin Rickard received the unanimous approval of the meeting and was therefore duly elected and took the Chair for the remainder of the meeting.

Election of Vice-President: It was proposed by A.R. Busby, seconded by M.H. Rickard and approved by the meeting that Dr Trevor Walker be elected a Vice-President of the Society.

Election of Officers: Both A.R. Busby and A.M. Leonard had expressed their willingness to stand for re-election as Honorary General Secretary and Honorary Treasurer respectively and they were elected by the meeting.

Honorary Meetings Secretary: Patrick Acock had expressed a willingness to fill this vacancy and was duly elected by the meeting.

Election of Editors: Following the resignation of J.W. Merryweather, Prof. Barry Thomas agreed to stand for election as Editor of the *Pteridologist.*
Josephine Camus agreed to stand for election as Editor of the *Fern Gazette* with J.A. Crabbe; Dr Mary Gibby was retiring as an editor.
Alison Paul agreed to stand for re-election as Editor of the *Bulletin.*
Anthony Pigott was standing for election as Editor of the Society's new WWW site.
It was proposed by Dr T.G. Walker, seconded by A.R. Busby and approved by the meeting, that the Editors be elected *en bloc.*

Election of Committee: The two longest serving members of the Committee due to retire were P.H. Ripley and R.J. Cooke. The President thanked them for their service. Two nominees to join the Committee were Mike Porter, proposed by E.J. Baker, seconded by J.H. Bouckley, and Rose Murphy, proposed by A.R. Busby and seconded by M.E. Nimmo-Smith. The remaining members of the Committee standing for re-election were: E.J. Baker, Miss J.M. Ide, A.C. Jermy, Miss H.S. McHaffie, Mrs M.E. Nimmo-Smith, R.N. Timm, Prof. A.C. Wardlaw.
It was proposed by S.J. Munyard, seconded by D. Holly and approved by the meeting that they be elected *en bloc.*

ITEM 11 – ELECTION OF HONORARY AUDITORS: Both Graham Ackers and Graham Hoare were willing to stand for another year as Auditors. It was proposed by A.R. Busby, seconded by J.H. Woodhams and approved by the meeting that they be elected.

ITEM 12 – ANY OTHER BUSINESS:
As there was no further business the President thanked members for attending.
The meeting closed at 3.15 p.m.

A.R. Busby
Hon. Gen. Sec.

FINANCIAL STATEMENT AS AT 31 DECEMBER 1996

Notes to the Accounts

1. The Society had the following stocks of books at 31.12.1996 (1995 stocks in brackets): *Guide to Hardy Ferns* 0 (0), *Fern Names and their Meanings* 240 (264), *Cultivation and Propagation of British Ferns* 223 (290), *History of British Pteridology* 854 (859), *BPS Extracts and Papers* 453 (460).
2. Small floats were held by four officers at 31.12.1996. These are not included in the accounts.
3. The accounts reflect the subscriptions actually received in the year. Approximately £1,971 is subscriptions received in advance for 1997 but some subscriptions remain outstanding for 1996.
4. BPS Booksales had assets of £4,056.48 (£3,829.90) at 31.12.1996.
5. The Centenary Fund had 185 (192) copies of *A World of Ferns* at 31.12.1996.
6. The Society also possesses the following assets with less tangible value:
A share in a computer and software at The Natural History Museum which cost £1,000 in 1992.
The Spore Exchange has a computer and software that cost £1,000 in 1996 and a fridge that cost £200 in 1991.
Back issues of the *Bulletin, Fern Gazette* and *Pteridologist* valued at at approximately £3,000.
Merchandise valued at approximately £1,500.

ORDINARY ACCOUNT

(1995)	INCOME:	1996
£12,209.37	Subscriptions	£11,673.15
171.85	Interest	476.54
200.00	Booksales	–
8.00	Spore Exchange	–
730.79	Merchandise	174.26
49.00	Plant Sale	–
1,093.14	Sundries	3.00
£14,462.15	**TOTAL INCOME**	£12,326.95
	EXPENDITURE:	
1,872.00	Pteridologist	2,775.00
2,106.25	Gazette	1,196.00
1,889.00	Bulletin	1,838.00
1,298.48	Printing & Stationery	428.70
2,429.33	Administration & Postage	1,659.08
19.15	Subscriptions to Societies	7.15
1,014.88	Plant & Spore Exchanges	–
226.80	Meetings	465.70
293.75	Merchandise	–
-	Mapping Project	479.57
£11,149.64	**TOTAL EXPENDITURE**	£8,849.20
3,312.51	BALANCE for 1996	3,477.75
4,018.14	Brought forward from 1995	6,330.65
(1,000.00)	Publications Account	–
£6,330.65	Carried forward at 31.12.1996	£9,808.40

CENTENARY FUND

5,285.64	Brought forward from 1995	5,440.06
142.81	Interest	245.09
(400.00)	Grant	–
48.00	World of Ferns	56.00
363.61	Intercept	112.35
£5,440.06	Carried forward at 31.12.1996	£5,853.50

GREENFIELD FUND

1,808.49	Brought forward from 1995	1,444.35
48.86	Interest	65.07
(413.00)	Grant	(50.00)
–	Donations	55.00
£1,444.35	Carried forward at 31.12.1996	£1,514.42

PUBLICATIONS ACCOUNT

1,953.10	Brought Forward from 1995	2,507.25
293.75	Offprints	295.50
(600.00)	Special Publication No. 1	–
14.40	Special Publication No. 1	–
101.60	Special Publication No. 2	82.00
131.50	Special Publication No. 3	245.00
20.40	Special Publication No. 4	21.00
22.50	Special Publication No. 5	46.50
(430.00)	Reprinting	–
1,507.25	Balance	3,197.25
1,000.00	Ordinary Account	–
£2,507.25	Carried forward at 31.12.1996	£3,197.25

SPECIAL INTEREST GROUPS

FOREIGN HARDY FERN GROUP

A.R. Busby

I am pleased to report that the FHFG's success continues unabated and we continue to enrol new members, membership now standing at about 22. Our third newsletter was circulated in December 1996 and was the largest so far produced. Thanks to a modest grant from the Greenfield Fund, we were able to include coloured photocopies of European and North American Hardiness Zones. Articles on growing foreign hardy ferns in Surrey, Lincolnshire and Germany were included. I have only just enough copy for our fourth newsletter which I hope to circulate in the near future.

Any members wishing to join this group should write to A.R. Busby, 16 Kirby Corner Road, Canley, Coventry CV4 8GD.

AQUATIC PTERIDOPHYTE GROUP

Organiser: Jennifer M. Ide, 42 Crown Woods Way, Eltham, London SE9 2NN.

TREE-FERN GROUP

M.H. Rickard

The group continues to grow (now 22 members), as does the newsletter. The two issues produced during the past year ran to about ten sides each. Much excellent copy has been contributed by Alastair Wardlaw who recently visited New Zealand, Australia, France etc. where he gleaned all sorts of interesting information about a whole host of different species.

At his home in Glasgow, Alastair is carrying out some quite exciting experiments with several species of tree-fern. Coupling this with his rapidly accumulated worldwide experience, he seems to be at the centre of activity and I have therefore asked him if he would be prepared to take over editing the SIG newsletter. I am delighted to say he has accepted. The next issues should be in autumn 1997 and spring 1998. Any copy will be gratefully received by Alastair at 92 Drymen Road, Bearsden, Glasgow G61 2SY; tel. 0141-942-2461; e-mail: a.wardlaw@bio.gla.ac.uk. Members wishing to join the group should also apply to Alastair from whom back issues of the Newsletter are also available.

Last year I asked members of the group to send ten second class stamps each year to help with costs. I am now pleased to say this is no longer necessary as the newsletter will be funded by the Society centrally.

FILMY FERN GROUP

S.J. Munyard

The first newsletter for the group was issued later than anticipated due to my change of employment this year. If anyone has access to filmy ferns for cultivation or pieces of tree-fern trunk for use as a growing medium, I would be pleased to hear from them. Anyone else interested in joining this group please contact Steve Munyard at 234 Harold Road, Hastings, East Sussex TN35 5NG.

BPS MAPPING PROJECT

This note is based on a presentation given at the BPS AGM at Kew on 18 October 1997.

The basic objective of this scheme is to produce a new fern atlas by about the year 2000. The precise date is uncertain, mainly because there is some dependency on the Botanical Society of the British Isles' 'Atlas 2000' project. We intend to create an on-going pteridophyte database so that the atlas production is not a one-off publishing activity. We will exploit new technology in analysis and publication, e.g. GIS (geographical information systems), database methods, WWW (world-wide web) and CD-ROM.

The actual publications to be produced include a book, provisionally entitled *The Geography and Ecology of the Pteridophytes of Britain and Ireland*, an interactive CD-ROM and on-line access to the pteridophyte database through the BPS WWW site. The publications will include distribution maps at different scales to illustrate specific taxa and overlays with environmental and ecological data. The CD-ROM version has the potential of displaying good colour photographs.

Our approach is to work with others, e.g. BSBI and BRC (Biological Records Centre), adding our specialist knowledge to their Atlas 2000 project by acting as referees for identification of difficult fern groups, and recording selected scarce species in greater detail. In return we have an agreement with BRC to use their collective records in the book proposed above. More specific work with the BSBI in 1997 has included attendance at their Atlas 2000 workshops and the BSBI Recorders' Conference, including distribution of the *Affinis Watch* paper on morphotypes. We have also contributed the pteridophyte section of a new *Plant Crib 1998* to be published next May, the substance of which will be available to BPS members. We will work with the Record Centres, BRC in Great Britain, CEDAR in Northern Ireland and the equivalent in the Republic of Ireland, feeding our records to their databases and using extracts of their pteridophyte records. We will also liaise with the Conservation Agencies including English Nature, the Countryside Commission for Wales, Scottish Natural Heritage, Department of the Environment (Northern Ireland) and the Wildlife Trusts.

The BPS Mapping Project team is made up of a steering committee comprising Rob Cooke, Clive Jermy and Anthony Pigott, with 'Regional Advisors' Tom Curtis (Republic of Ireland), Paul Hackney (Northern Ireland), Heather McHaffie (Scotland), Gavin Stark (England) and Ray Woods (Wales).

Our own computing facilities are provided by a computer at The Natural History Museum, running the 'Recorder' program. This will be used to collate records originating within the BPS and to hold and process extracts received from Record Centres. This is likely to be enhanced with more computing power and other software including mapping facilities; D-Map is being acquired.

The greatest needs that the project has at present are for data/record management effort to manage the data flow and identify target areas and taxa, for data entry effort to put new BPS records on the database and for more new records from members. We intend to resurrect the BPS Recorder post. This would be a data manager, co-ordinating data-flow with BSBI and Record Centres, providing lists of gaps and target areas and vetting records. It would be rather like a BSBI vice-county recorder but dealing with pteridophyte records for all areas. We also need data entry people. They would use either the computer at the NHM or their own if more convenient, enter new records from record cards, etc. and use the BPS database to produce reports and maps. This

work can be varied depending on the wishes and aptitude of the person. Anyone who feels they could help in any of these capacities should contact me. [Note new address: Kersey's Farm, Mendlesham, Stowmarket, Suffolk IP14 5RB; e-mail: anthony.pigott@btinternet.com]

All members can contribute by making records of all pteridophytes, by site, parish, tetrad, 10km square, etc., especially looking at endangered and scarce species in detail, by looking for old records, especially at the edge of a taxon's normal range and by looking for gaps in distribution by using their knowledge of ecology and sites. Anyone needing guidance in this should contact Clive Jermy (Botany Department, The Natural History Museum, Cromwell Road, London SW7 5BD; e-mail: c.jermy@nhm.ac.uk).

So, what is the outlook for the project? On the positive side, the objectives are established, we are already working with other organisations and the technology is available. However, we still desperately need more effort for data management and input in order for us to achieve our objectives.

Anthony Pigott

ERIDGE ROCKS
– an opportunity to see *Hymenophyllum tunbrigense* in SE England

This site, in the High Weald of East Sussex between Tunbridge Wells and Crowborough (51/554358), is an important example of the Wealden Sandrocks and as such contains a range of locally rare species. It is a Site of Special Scientific Interest, first notified in 1950. Of particular interest is a large population of Tunbridge filmy fern. Other ferns are present in the surrounding woodland, as well as a range of interesting mosses and liverworts growing on the rock outcrops.

This site has recently been purchased by the Sussex Wildlife Trust, mainly through grant aid from the Heritage Lottery Fund and English Nature, but also with a very modest contribution (£250) from the British Pteridological Society. To my knowledge this is the first time the BPS has contributed to the purchase of a nature reserve.

Members may like to know that the site is 'open access' and visits from BPS members are encouraged. The Sussex Wildlife Trust would be grateful to receive any plant records for the site, and any other observations (e.g. Is the *Hymenophyllum tunbrigense* as luxuriant as it used to be? Has *Dryopteris aemula* been seen here? How are the ferns responding to management at the site?).

If you do visit, please be careful around the rocks – it is a vulnerable site and a misplaced boot could easily scrape off some rare plants; the filmy fern is tucked away and the Trust have asked if visitors could avoid creating an obvious path to it.

Rob Cooke
Conservation Officer

OBITUARIES

JAMES WOOD DYCE MBE 1905 – 1996

Before 1934, Jimmy – as he was known to all his friends, knew nothing about ferns. It was only a chance request from a friend to collect some hart's tongue fern while on holiday in north-east Scotland that made Jimmy realise there was more to ferns than met the eye. Aided by his father he soon got to grips with some of the commoner types and as a consequence wanted to know more. On returning to London he wrote to A.J. Macself, then editor of *Amateur Gardening* and coincidentally a top fern man at the time, asking him to suggest a good fern book. Macself responded by recommending *British Ferns and their Varieties* by Charles Druery. On his 30th birthday in 1935 Jimmy was presented with a copy – in his own words *the most important* present he ever received.

To have chanced upon A.J. Macself in this way was extraordinary but Jimmy's enthusiasm brought his new interest to the attention of all his friends. The wife of one revealed to Jimmy that her uncle Joe had a collection of ferns and was treasurer of a Society called the British Pteridological Society. Uncle Joe turned out to be J.J. Sheldon, another very active fern man at the time. Jimmy was greatly impressed by his collection, especially the cultivars of *Polystichum setiferum;* he immediately joined up, in 1935.

Fuller details of how Jimmy became interested in ferns, how he almost single-handedly saved the Society from extinction after the war, how he filled almost every post in the Society, many of them simultaneously, and how he was for many years 'Mr Fern' have been told elsewhere (See Dyce 1981, 1982, 1991, Various 1985, Busby 1991, Hall 1991). In the space available here it seems appropriate to give a more personal reminder of a man who became a very special friend to so many fern enthusiasts.

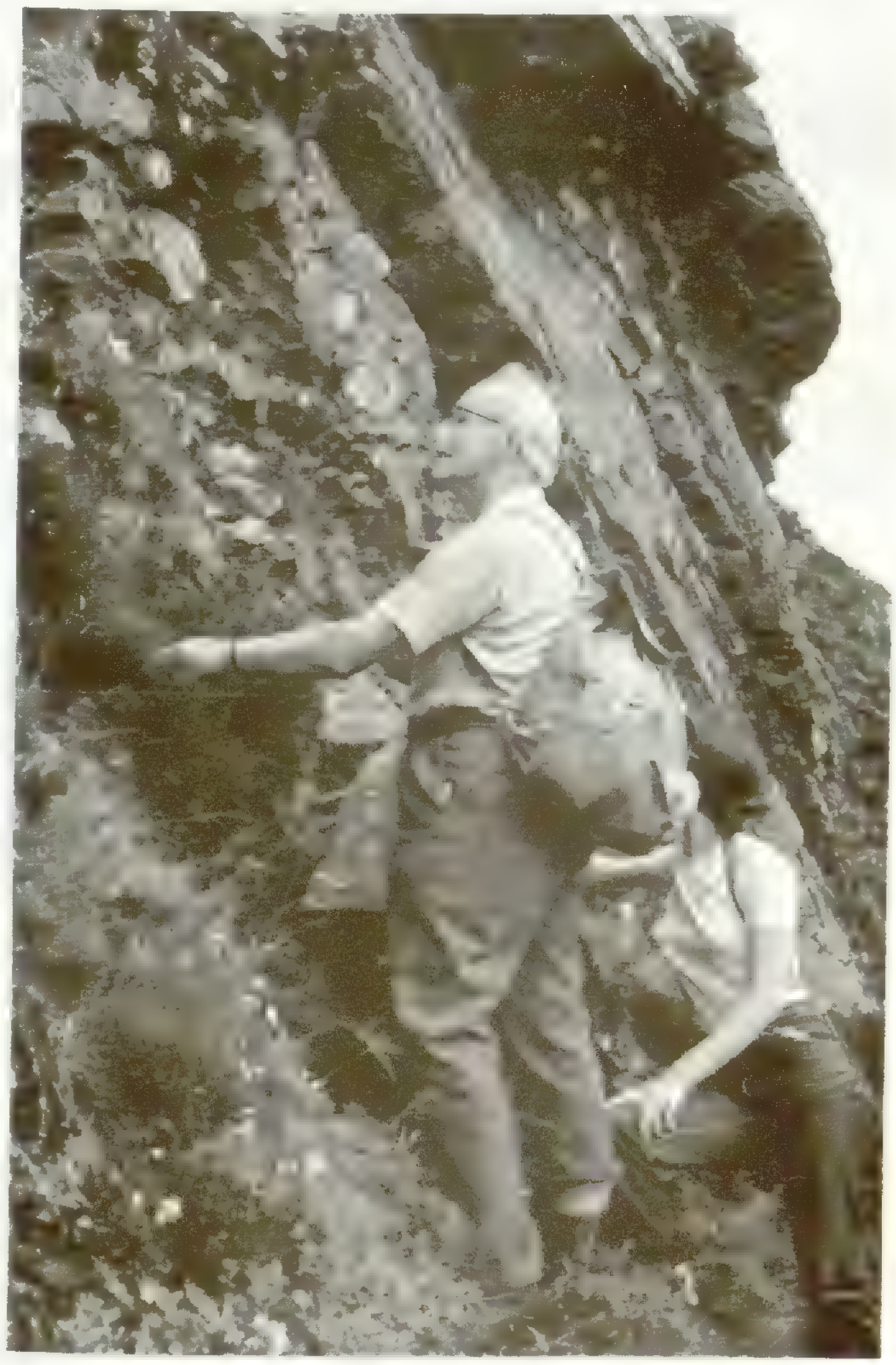

photo: A.C. Jermy

Jimmy Dyce in the field, late 1960s

Field meetings were always Jimmy's favourite way to enjoy his hobby, either in the wild or in other members' gardens. For many years in the sixties and seventies his attendance at meetings was the corner-stone of the Society's success.

Like most, I first met Jimmy on a field trip. In my case it was on the Isle of Arran in 1969. He was already 64 and still in short trousers! This was my first Society

meeting and I really only went because I knew Arran from the 1950s and wanted to see it again. I expected to be bored with a lot of aged and rather intense enthusiasts. But not a bit of it! We had a wonderful time! The hard core of the group certainly were enthusiasts but they were human too, and the whole week went off as an extremely enjoyable affair. At the heart of the success was Jimmy Dyce who inspired other notables, including Henry Schollick and Fred Jackson, to contribute to the relaxed atmosphere of the week. After that experience I, and many others, knew that if Jimmy Dyce was going to be at a meeting it was going to be a success. For years he attended virtually every meeting of the Society and was the main catalyst for its rapid growth through the seventies and eighties.

Peter Boyd, Jimmy and Joan Lorraine discussing the finer points of some of Joan's 'Greencombe' series of *Polystichum* cultivars.

Sadly, many members played safe and sampled the BPS at either an indoor meeting or the annual Kew Gardens tour. I say sadly because at these meetings there is never enough time to get to know people and certainly while Jimmy was secretary, treasurer, editor etc. he had no time to chat at length. He was, however, the perfect host. Every new member was personally greeted – "Call me Jimmy". I think it would be safe to say that every UK member knew Jimmy either personally, or by correspondence, and very many overseas members, amateur and professional, enjoyed similar contact.

Over the years many new members joined the Society because Jimmy had been so helpful and enthusiastic when approached for advice. I am on dangerous ground here if I pick out a few names but some do deserve special mention. Were it not for Jimmy I wonder if Joan Lorraine would have got the 'bug' and now be a proud holder of the National Collection of *Polystichum*. Certainly without his enthusiasm at the Bromyard meeting in 1969 Ray and Rita Coughlin are unlikely to have been hooked – what a disaster that would have been for the fern cult. Would the Society have got off the ground if Jimmy hadn't persuaded Dick Cartwright to take on organising meetings and later the spore exchange? I could go on and on, what would the Society have done without many others who Jimmy encouraged to participate in Society matters.

Ray Coughlin and Jimmy in Ray's garden at Bromsgrove.

During the 1950s fern interest in Britain and overseas was weak, but the development of the Society took a step forward with the appointment in 1959 of a new editor for the *Fern Gazette*, Clive Jermy. Clive encouraged the scientific side of fern study as the *Gazette* thrived, again with Jimmy's whole-hearted support. This left a void for the fern grower. Realising this and stimulated by complaints from some of the horticultural members, Jimmy launched a new journal – *The British Pteridological Society Newsletter*, later becoming the *Bulletin* and finally the *Pteridologist*. I remember how much I used to look forward to receiving the *Newsletter* in particular; the information contained was unavailable elsewhere, and most of it came from Jimmy's pen. The list of 52 fern books given as an appendix to the 1967 issue had a huge effect on me and many other members at around that time. I was not alone in wanting to own every book on the list – fern book collecting was fashionable and fun! Jimmy, of course, encouraged our interest. He built up BPS Booksales and made us all green with envy with stories of how he bought *The Ferns of Great Britain and Ireland* by Moore and Lindley for 15 shillings (75p!) during the war.

Even though he was a horticulturalist Jimmy always saw the professional scientific side of pteridology as an important part of the Society's future. He always did whatever he could to encourage professional involvement in the Society, particularly at the Natural History Museum initially with A.H.G. Alston, then Jim Crabbe and Clive Jermy and eventually with Mary Gibby, Josephine Camus and Alison Paul. Elsewhere in Britain, Jimmy developed links with Prof. Holttum and Prof. Irene Manton, both to become Society Presidents. I know one highlight for him was his trip to Portugal in 1976 with Clive Jermy and Mary Gibby when they discovered *Dryopteris guanchica*, a new record for mainland Europe. He was certainly not just a variety man! In 1978 the BPS and the Botanical Society of the British Isles published *Atlas of Ferns of the British Isles*, and while Jimmy did not get credit as an editor he, along with Tony Worland, was one of the main contributors of records. Jimmy with his little booklets of record cards was a very familiar site in the field!

Jimmy's catalytic effect was not confined to Britain. He went to great lengths to encourage fern interest elsewhere. Most notably he corresponded with several Australians including Ray Best in Sydney and Chris Goudey in Melbourne. Both have subsequently written books on ferns. Chris was also instrumental in setting up the Fern Society of Victoria, and is now one of the leading fern growers in the world. Jimmy also reached out to the other side of the world, to Seattle, where he established contact with Judith Jones. This was a special relationship for Jimmy which lasted up to his death. Judith made two or three visits to Britain enjoying ferny tours with Jimmy. Once Jimmy went over to see Judith on her patch and enjoyed very wide ranging excursions into the temperate forests of the Olympic Peninsula and the deserts of Arizona as well as the gardens and hospitality of many American fern friends. The Hardy Fern Foundation later sprung up in Seattle under the guidance of Sue Olsen, no doubt indirectly inspired by Jimmy Dyce.

Curiously, few pteridophytes or fern cultivars have been named after Jimmy. Those known to me are:
Equisetum x *dycei.* A hybrid horsetail *(E. fluviatile* x *E. palustre)* named in honour of Jimmy on his eightieth birthday by Chris Page.
Dryopteris dilatata 'Jimmy Dyce'. Found on Arran in 1969 by Jimmy and Fred Jackson. It is an erect and slightly congested form. Very distinct as a cultivar but could be a form of *D. expansa.*
Adiantum aleuticum 'Dyce's Dwarf'. This is an odd one which surfaced in America. Jimmy saw it on his trip over there and disclaimed all knowledge of it!
Polystichum setiferum 'Falcatum Dyce'. Pinnules leafy, incised and falcate. New fronds golden in spring.
Polystichum. There will hopefully soon be a new taxon of *Polystichum* named after Jimmy, but I cannot let the cat out of the bag here!

Jimmy found many other varieties in the wild while others arose spontaneously in his garden. His interest was not confined to ferns. In Norfolk he found *Calluna vulgaris* 'Jimmy Dyce', a double form highly rated by heather enthusiasts. In his garden he undertook breeding daffodils, maintaining contact with specialists such as Michael Jefferson-Brown, having much success in selecting for the paler colours and producing a range of very arresting cultivars. Some of these were given away but sadly most died out under the brambles that eventually overran that part of his garden.

I know his greatest disappointment was that he never found either an *Asplenium scolopendrium* 'Crispum' or a *Polystichum setiferum* 'Divisilobum'. An extraordinary fact given that variety hunting was his favourite pastime for many years, particularly in the post-war years with Percy Greenfield and Rev. E.A. Elliot. Perhaps this was a blessing in disguise as he was most unhappy with the *International Code of Nomenclature of Cultivated Plants* published in 1959. This outlawed Latin cultivar names published after 1959, destroying the highly developed system of nomenclature so well established in the fern world. The 1959 Code and subsequent revisions have been accepted very slowly by many of us in the Society; even now, 38 years later, some illegal naming goes on. 'Falcatum Dyce' given above is illegal, but I don't know what else to call it! Right to the end Jimmy could not bring himself to accept the Code.

Jimmy wrote far too many articles and notes on Society business to attempt to list them here, but he did have two books published by the Society: *Fern Names and their Meanings* in 1988, and *The Cultivation and Propagation of British Ferns* in 1991, revised edition 1993. The latter work has proved extremely useful, selling very well with all profits to the Society; the fern names book has been less popular but is a much

Jimmy Dyce checking his book *Fern Names and their Meanings* at home at Loughton.

needed source of otherwise unavailable information. He left manuscripts for two other books, one of which we hope will be published by the Society in the near future.

For many of us our friendships with Jimmy spread beyond the confines of the BPS. Ray and Rita Coughlin joined him on at least one wine tasting trip to France. Wine, as well as malt whisky, was one of his great passions. He was a very active member of the Loughton Wine Circle. While I lived in France for the summer months during the early seventies he always came out to visit, at different times with Dick Cartwright, Clive and Alma Jermy, Joan Lorraine, Barry Thomas and Elizabeth Sheffield. Ferns were not ignored but quite a lot of wine tasting and general tourism was on the programme!

Memories of individual Society field meetings with Jimmy are too numerous to be retold here in detail. One recurring characteristic was the 'après-fern' in the hotel bar. We have spent so many enjoyable evenings watching Jimmy drink his beloved malt whisky and listening to tales of fern meetings past. It was on evenings like this that Jimmy opened the door to the wonderful world of ferns and particularly the British Pteridological Society to so many of us. Very appropriately Jimmy was awarded the MBE by the Queen at Buckingham Palace in 1993 for his services to the British Pteridological Society. It is hard to find a more fitting tribute to the life of a man who did so much for the promotion of ferns.

References

Busby, A.R. (1991) Gleanings from the minute book 1891-1991, pp. 95-103 *in* J.M. Camus (ed.) *The history of British pteridology 1891-1991*. British Pteridological Society, London.

Dyce, J.W. (1981) Presidential Notes. *BPS Bulletin* 2(3): 109-110.

Dyce, J.W. (1982) Ferns, the fern society and – Jimmy Dyce. *BPS Bulletin* 2(4): 185-187.

Dyce, J.W. (1991) The British Pteridological Society – the first hundred years, pp. 83-93 *in* J.M. Camus (ed.) *The history of British pteridology 1891-1991*. British Pteridological Society, London.

Hall, N.A. (1991) The presidents of the British Pteridological Society, pp. 119-126 *in* J.M. Camus (ed.) *The history of British pteridology 1891-1991*. British Pteridological Society, London.

Various (1985) pp. 49-58 in *Pteridologist* 1(2).

Selected list of publications of Jimmy Dyce

1952. Fern hunting in the West Country. *Brit. Fern Gaz.* 8: 45-48. (From this date until the Newcastle Emlyn meeting in 1981 the majority of BPS meetings were written up by Jimmy, these are too numerous to itemise here. He also published many other shorter notes, and items on Society business in his capacity as Hon. Gen. Secretary.)

1963-1972. Editor, founder and main contributor to the *BPS Newsletter.*

1963. Variation in *Polystichum* in the British Isles. *Brit. Fern Gaz.* 9: 97-109.

1966. The B.P.S. Austrian excursion. *Brit. Fern Gaz.* 9: 288-295.

1966. Hardy fern varieties. *Bull. of Hardy Plant Soc.* 3(5): 138-141.

1966. Hardy ferns. *Amateur Gardening,* Vol. LXXXIII, No. 4266, 16th July, p. 22.

1966. Ferns for the garden. *Amateur Gardening Annual,* pp. 70-71.

1973-1978. Editor, founder and main contributor to the *BPS Bulletin* Vol. 1.

1977. Natural fern gardens. *Oasis* 2(1): 6-8.

1977. Natural fern gardens (Part II). *Oasis* 2(2): 10-12.

1977. Growing ferns from spores. *Natural Science in Schools* 14(2): 43-45.

1988. *Fern names and their meanings*. British Pteridological Society, London. Reprinted 1994.

1991. Obituary of Henry Schollick. *BPS Bulletin* 4(2): 86-87. (His last note in the *Bulletin.)*

1991. The British Pteridological Society – the first hundred years. & Appendix of officers 1891-1991. pp. 83-93 *in* J.M. Camus (ed.) *The history of British pteridology 1891-1991.* British Pteridological Society, London.

1991. *The cultivation and propagation of British ferns.* British Pteridological Society, London.

1992. *Annotations by Dr. FW Stansfield on 'British ferns and their varieties' by CT Druery, 1910.* (Duplicated booklet)

1993. *The cultivation and propagation of British ferns.* Second edition. British Pteridological Society, London.

1994. More thoughts on *Polystichum setiferum* 'Pulcherrimum'. *Pteridologist* 2(5): 222. (His last note in the *Pteridologist.)*

Martin Rickard

JEAN R. HEALEY

1914-1997

Jean Healey, née Taylor, joined the British Pteridological Society in 1936 and remained a member for 61 years, a record equalled by Jimmy Dyce and only beaten by Reginald Kaye with 63 years of membership. At the time of her death in October she was our longest serving member. Over those years she was a staunch supporter of the Society, doing whatever she could to help out, including during the difficult years after the war. Jean served on the committee from 1948 to 1966 and was made an honorary member of our Society in 1981.

Back in 1981 I cajoled Jean into putting her memories of 'the old days' into print. This she duly did in the *BPS Bulletin* 1981 pp. 129-132. In this fascinating account she described how her family nursery, Taylors of Bracknell, was born and how she grew up knowing two of the greatest fern men of the century, T. Henwood and Dr F.W. Stansfield. The nursery diversified into ferns in *c.*1922 and Jean took over the ferns completely in 1935. She immediately sought help from the two great experts and they alerted many members of the Society who rallied round giving her plants and spores to set her on her way. Those who helped included Henwood, Stansfield, Lovelady, Sheldon and Robert Bolton Snr. She told me that she asked our then President, Cranfield, for a piece of *Adiantum venustum* but he refused her request! *A. venustum* was a rare plant in those days. She issued several fern catalogues and lists. Typically, the *Additional Hardy Ferns* list for October 1957 included mouth-watering treasures such as *Athyrium filix-femina* 'Victoriae' for 21/-, *Athyrium filix-femina* 'Plumosum Druery' for 7/6, *Athyrium filix-femina* 'Plumosum Stansfieldii' for 5/-. Does anyone know if this cultivar still exists? The nursery closed in about 1964 when the land was sold off for development.

Jimmy Dyce and I called in on Jack and Jean in *c.*1980 to see their ferns and more particularly their polypods. They were very generous as old age was even then creeping up on them and they wanted to see their remaining ferns passed into younger hands. They still had some treasures, not least *Polypodium vulgare* 'Jean Healey', raised by Jack and named after his wife, and *Polypodium cambricum* 'Barrowii'. This was the only time I ever came across the latter variety in any of the fern collections I visited, apart from a small plant in the middle of Robert Bolton's wonderful collection some years later. I can well remember what a great thrill it was to find true 'Barrowii' at last after so many false starts.

On that day Jean and Jack gave Jimmy well over £100 worth of fern books including the Octavo *Nature Printed British Ferns* by Moore (1959). They would take no money, insisting that they should be used however Jimmy saw fit. Jimmy accordingly slipped these two volumes and several other books into BPS Booksales, thus making a useful contribution to Society funds. Despite parting with their treasured books the Healeys remained interested in ferns and continued growing and propagating them right into the 1990s.

Ever since that visit we exchanged Christmas cards and I called on them whenever I could. There was always plenty to talk about; as fern nurserymen themselves they took an interest in the progress of our efforts at Chelsea Flower Show etc. Sadly, Jack developed Alzheimer's disease and died in March 1995. They will both be missed as important links between the modern fern era and the pre-war days when the Victorian growers were still around.

Martin Rickard

We were also sad to learn of the death of the following long standing members to whose families we extend our sincere condolences:

Dr Hedley E. Bellringer joined the Society in 1969 and we were fortunate to enjoy his company on several Society meetings.

Mrs Angela Hill was a member from 1972 to 1996 and delighted us with her company on several occasions. I recall her telling me of her days as a tea planter's wife in Ceylon during the 1930s and complaining about having to weed out the invasive *Adiantum*.

Mrs Diana Ellenberg joined the Society in 1979 and occasionally came to the London meetings.

Mrs Alma Jermy was a Family Member for many years. Her first taste of the Society was in 1965 when she went to Austria with Clive on our first overseas excursion. She had met and married Clive in New Guinea only a few months previously and found the Tyrolean high mountains a bit cool. When the family were young she continued to come on field trips to Grasmere, Teesdale, and several Scottish trips but latterly found hill walking too strenuous and took on the role of helping with refreshments at indoor meetings. She organised several excursions for the spouses of overseas delegates at the international pteridophyte symposium in Edinburgh in 1983, and over a period of 30 years at Otford was a good hostess to many visiting international pteridologists.

Matt Busby

MEMBERSHIP LIST: ADDITIONS AND AMENDMENTS

NEW MEMBERS

** new members 1997; ** new members 1998; # members rejoined 1997; ## rejoined 1998*

* Akers, Mr J.A., 20 New Street, Wordsley, West Midlands DY8 5RY
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Zink, Dr M.J., Hackstr. 19, Kaiserslautern, D-67657, Germany

MEETINGS PROGRAMME 1998

Meetings Secretary: P.J. Acock
Meetings Sub-Committee: R.G. Ackers, N.J. Hards, A.M. Leonard, P.H. Ripley

Sat 7 March
Indoor Meeting – The work of Pteridologists
Location: Chelsea Physic Garden
Leader: Graham Ackers

Sat 23 - Mon 25 May
Long Weekend Field Meeting – Hastings, East Sussex
Centre: Fairlight Lodge Hotel, Hastings
Leaders: Mark Border, Paul Ripley, Steve Munyard

Sat 13 June
Day Visit – Wisley, Woking, Surrey
Location: Royal Horticultural Society Garden, Wisley
Leader: Andrew Leonard Time: 10.30

Sat 18 July
Day Indoor Meeting & Fern Show – Coventry
Location: Warwick University, Dept. of Science Education, Canley, Coventry
Leader: Matt Busby Time: 11.00

Fri 31 July - Sun 2 Aug.
Long Weekend Field Meeting – Brecon Beacons
Centre: StoneCroft Hostel, Llanwrtyd Wells
Leader: Ray Woods

Thurs 20 - Sat 22 August
Southport Flower Show: BPS Stand
Further Info.: Matt Busby

Thurs 10 - Sun 13 Sept.
Long Weekend Field Meeting & AGM – Lake District
(Annual General Meeting at 2 p.m. Sat. 12th September)
Centre: Waterhead Hotel, Coniston, Cumbria
Leader: Mike Porter

Sat 16 January 1999
Members' Day – Reading, Berkshire

For further details of these and other meetings of interest to members, including information on accommodation, please see the separate Meetings Programme sheet. This can be sent to overseas members on request.

REGIONAL MEETINGS

For details of additional meetings in the following areas, please contact the regional organisers, enclosing a stamped addressed envelope.

Midlands	A.R. Busby, 16 Kirby Comer Road, Canley, Coventry CV4 8GD
Leeds & District	B. Wright, 130 Prince Rupert Drive, Tockwith, York YO5 8PU
South-East England	P.H. Ripley, North Lodge, Dene Park Gardens, Shipbourne Road, Tonbridge, Kent TN11 9NS
East Anglia	B.R. Stevenson, Willow Cottage, Cowling, Newmarket, Suffolk CB8 9QB
North-West England	Mrs M. Garstang, Overbeck, Pennybridge, Ulverston, Cumbria LA12 7RQ
Cornwall	Miss R.J. Murphy, Shang-ri-la, Reskadinnick, Camborne, Cornwall TR14 0BH
Wessex	No further meetings due to lack of support.

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